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EDUCATIONAL AND OCCUPATIONAL ASPIRATIONS AND
EXPECTATIONS OF GRADE ELEVEN BUSINESS
EDUCATION STUDENTS IN EDMONTON,
ALBERTA

BY



ROBERT JOSEPH COULSON

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Educational and Occupational Aspirations and Expectations of Grade Eleven Business Education Students in Edmonton, Alberta" submitted by Robert Joseph Coulson in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

The purpose of this study was to determine why students have chosen the business education program in high school, and what educational levels and career goals they: (1) would like to attain, and, (2) expect to attain. In accordance with this purpose, a sample of grade eleven business education students in the Edmonton Public School System was surveyed in the spring of 1969.

With reference to why students have chosen the business education program it was found that approximately twenty-six per cent of the boys and approximately sixty-seven per cent of the girls chose business education because they felt it would enable them to secure employment on leaving high school. Approximately fifty-three per cent of the boys and approximately twenty per cent of the girls felt they had been placed in business education by the school. On the bases of these findings the conclusions were reached that about two-thirds of the girls chose business education because of its vocational orientation while about one-half of the boys felt they had not chosen their program.

With reference to the educational aspirations and expectations of students, it was found that approximately fifty-four per cent of the boys and approximately fifty-two per cent of the girls aspired to a high school diploma or to a diploma from the Northern Alberta Institute of Technology (NAIT). Eighty per cent of the boys and approximately

eighty-six per cent of the girls expected to attain a high school or NAIT diploma. On the bases of these findings the conclusion was reached that the business education students who expected to attain a high school or NAIT diploma expressed realizable educational expectations.

With reference to the occupational aspirations and expectations of students, it was found that approximately twenty-eight per cent of the girls aspired to a professional or semi-professional occupation, while sixty per cent of the girls expected to have a clerical or sales occupation. This finding supported the conclusion that most of the girls chose business education because of its vocational orientation. Seventy per cent of the boys did not know, were not sure, or had not thought about the occupation they would like to have or expected to have. On the basis of this finding the conclusion was reached that most of the boys were uncertain about their career.

When the students' educational and occupational aspirations were compared with their educational and occupational expectations, on the bases of chi square findings the conclusions were reached that their educational aspirations were significantly related to their educational expectations and that their occupational aspirations were significantly related to their occupational expectations.

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CHAPTER I

INTRODUCTION

STATEMENT OF THE PROBLEM

The purpose of this study was to determine the reasons why students have enrolled in the business education program in high school, and what educational levels and career goals they: (1) would like to attain, and, (2) expect to attain. In other words, are the educational and occupational aspirations of students in business education consonant with their educational and occupational expectations?

NEED FOR THE STUDY

With the growing complexity of modern society due to the rural-urban shift in population, advancing technology, and increasing specialization in individual occupations, the choice of educational route to prepare oneself for an occupation is a very difficult task. Nevertheless, such a task faces practically every young person today. Recently, career decisions of Canadian youth were surveyed for the Department of Manpower and Immigration. The following statement is found in this study:

What remains obscure, however, is the whole problem of how young people come to make educational and occupational choices; to what extent the process is one of rational planning

and decision-making or one of drift and haphazard allocation among available jobs; whether the way in which young people make their choices is fairly standardized or varies systematically among different age and sex groups, various regions, types of schools and educational programmes, and among contrasting family and community backgrounds.¹

The Department of Manpower and Immigration study was a Canada-wide survey of students in all high school grades and programs. A finding pertinent to the study of aspirations and expectations of youth is that fully 27.2 per cent of Canadian high school students, or more than one in four, felt that "when a man is born, the success he's going to have is already in the cards."² Students, therefore, may feel that they have no choice when it comes to selecting a high school program and that even if they would like to attain a particular educational or occupational goal, they can only expect to attain the goal that has already been planned for them. Curriculum makers, however, in devising a curriculum for vocational business education, generally assume that students select the program because their vocational objective is business employment. Teachers, accordingly,

¹Department of Manpower and Immigration, Government of Canada, Career Decisions of Canadian Youth: A Compilation of Basic Data (Ottawa: Queen's Printer, 1967), p. 4.

²Ibid., p. 48.

teach with this objective in mind. It is not known for certain whether students in business education in Edmonton are enrolling in the business education program because they have aspirations and expectations for business employment, whether they are taking the course for personal use, or whether they feel that they have been placed in the program. There is a need, therefore, to determine whether the vocational objectives of the business education program are commensurate with the educational and occupational aspirations and expectations of students enrolled in the program. At present it appears that one of the assumptions on which the business education program is built is that the objectives of students and of the program are commensurate.

Aspirations are differentiated from expectations in this study to see if there is a relationship between what a person would like to attain, and what he expects to attain. Aspirations and expectations may be separated by what seem, to the aspirant, to be insurmountable barriers. If program planners are to assist students in realizing their aspirations, or at least in accepting their expectations, there is a need to know the nature of these aspirations. There is also a need to know where students' expectations lie, and, if aspirations and expectations are not the same, what barriers students perceive as separating the two. This study attempts to fulfill these needs.

VARIABLES

The intention of this section is to introduce the independent variables considered in this study by citing only a portion of the pertinent research. A review of research findings concerning the educational and occupational aspirations and expectations of students is found in Chapter II of this thesis.

A study known as "Project Talent" recently surveyed approximately 440,000 students enrolled in secondary schools across the United States. This study found that by far the largest percentage of the girls surveyed (30.3 per cent) expected to become secretaries, office clerks, or typists. Only .5 per cent of the boys surveyed had this expectation, however. In comparison, a substantially lower percentage of the girls (22.8 per cent) stated that they would like to become secretaries, office clerks, or typists. Of the boys, .4 per cent named these as occupations they would like to enter.³ These findings imply that sex may be a factor related to the aspirations and expectations of students and was, therefore, considered a variable in this study.

Gribbons and Lohnes, in a five-year study, followed 110 students in the metropolitan Boston area from the

³John C. Flanagan, et al., The American High School Student (Pittsburgh: Project Talent Office, University of Pittsburgh, 1964), pp. 5-21 to 5-22.

eighth grade through to late in the twelfth grade.⁴ They found that the average I.Q. for college aspirants was 111, while for those having no plans for further education beyond high school, the average I.Q. was 104. Because mental ability appears to be related to the aspirations of youth, it was considered a variable in this study.

Another finding of Project Talent was that parents of twelfth graders surveyed were, in general, in higher status occupations and better educated than the national average. The researchers in this study concluded that the higher one goes on the educational ladder, the higher is the educational level of the parents of the student.⁵ Similar findings have reported by Wilson⁶ and by Berdie and Hood.⁷ Socio-economic level of the family, therefore, appears to be related to the aspirations of students and was considered a variable in this study.

None of the studies reviewed reported the effect of

⁴Warren D. Gribbons and Paul R. Lohnes, "A Five-Year Study of Student's Educational Aspirations," Vocational Guidance Quarterly, XV, 1 (September, 1966), 67-68.

⁵Flanagan, et al., op. cit., pp. 5-46 to 5-51.

⁶Alan B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," Class, Status and Power, Reinhard Bendix and Seymour Lipset, editors (second edition; New York: The Free Press, 1966), p. 339.

⁷Ralph F. Berdie and Albert B. Hood, Decisions for Tomorrow (Minneapolis: The University of Minnesota Press, 1965), p. 137.

job experience on the educational and occupational aspirations and expectations of students. There are, however, indications that interests developed through actual work experience are very important in crystallizing occupational preferences.⁸ Job experience was, therefore, considered a variable in this study.

Slocum, in a 1953 study of schools in the state of Washington, found that 75 per cent of the high school seniors surveyed reported that some person had exercised a helpful influence in their occupational planning. These students ranked parents first among persons exercising helpful influence, and placed teachers in second place, peers third, and vocational counselors fourth.⁹ It appears, then, that parents, school authorities, and peers may influence the aspirations of youth and these factors were considered variables in this study.

In summary, the independent variables considered in this study were sex, mental ability, socio-economic level, job experience and the influences of parents, school authorities, and peers. The dependent variables were the students' educational and occupational aspirations and expectations.

⁸Walter L. Slocum, Occupational Careers (Chicago: Aldine Publishing Company, 1966), pp. 212-213.

⁹Ibid., pp. 215-216.

QUESTIONS AND HYPOTHESES

In accordance with the stated purpose of the study, answers were sought to the following questions:

1. Why have students chosen the business education program?
2. (a) What educational levels would business education students like to attain?
(b) What educational levels do business education students expect to attain?
3. (a) What occupational levels would business education students like to attain?
(b) What occupational levels do business education students expect to attain?
4. Who, or what according to students, has influenced them most in entering the business education program and in planning a career?
5. Do business education students expect to re-train on the job?

The following hypotheses were formulated for testing:

1. (a) There is no relationship between the educational aspirations and the educational expectations of business education students.
(b) There is no relationship between the occupational aspirations and the occupational expectations of business education students.

2. (a) There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex.
(b) There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex.
3. (a) There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and mental ability.
(b) There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex and mental ability.
4. (a) There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and socio-economic level.
(b) There is no relationship between the occupational aspirations and the occupational expectations of business education students

when these students are categorized by sex and socio-economic level.

5. (a) There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and job experience.

(b) There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex and job experience.

ASSUMPTION

This study assumed that the students in the sample were aware of the barriers which might prevent them from attaining their chosen occupational goals.

DELIMITATIONS

The following factors which may be related to the educational and occupational aspirations and expectations of students were not considered:

1. The background, aspirations, and preparation of teachers.
2. The academic history of success or failure of the students included in the sample.

3. The effect of dropping out of school and subsequently returning to school..

DEFINITION OF TERMS

Aspirations are defined as wishes or desires.¹⁰

Level of educational aspiration in this study means the highest level of education a student would like to attain, based on a scale ranging from "complete grade eleven" to "graduate degree".

Level of occupational aspiration in this study means the type of work or occupation a student would like to attain, based on a scale ranging from "unskilled worker" to "professional" and developed by Pineo and Porter in a nation-wide study concerned with the ranking of occupations in Canada.¹¹

Expectations are defined as a person's perception of what he will be doing or will have accomplished at some future date.¹²

Level of educational expectation in this study means

¹⁰Wilbur B. Brookover, et al., "Educational Aspirations and Educational Plans in Relation to Academic Achievement and Socio-Economic Status," The School Review, LXXV (December, 1967), 392.

¹¹Peter C. Pineo and John Porter, "Occupational Prestige in Canada," The Canadian Review of Sociology and Anthropology, IV, 1 (February, 1967), 24-40.

¹²Brookover, et al., loc. cit.

the highest level of education a student expects to attain, based on a scale ranging from "complete grade eleven" to "graduate degree".

Level of occupational expectation in this study means the type of work or occupation a student expects to attain, based on a scale ranging from "unskilled worker" to "professional" and developed by Pineo and Porter in a nation-wide study concerned with the ranking of occupations in Canada.¹³

Mental ability in this study means the total percentile ranking on the School and College Ability Test, Level 3, Form B, recorded in the student's grade nine records by the Department of Education, Province of Alberta.

Socio-economic level in this study is the numerical value obtained by placing the occupation of the head of the family on the Pineo-Porter scale.¹⁴

Business education courses. Typewriting 10, Typewriting 20, Shorthand 10, Shorthand 20, Bookkeeping 10, Bookkeeping 20, Clerical Practice 20, Business Fundamentals 10, Recordkeeping 10, Law 20, Data Processing 22 and Merchandising 20 are business education courses.¹⁵

¹³Pineo and Porter, loc. cit.

¹⁴Ibid.

¹⁵Department of Education, Government of the Province of Alberta, Senior High School Curriculum Guide for Business Education, Interim (Edmonton: Queen's Printer, September, 1965), pp. 1-28.

Business education program. Grouping of business education courses authorized by the Department of Education, Province of Alberta, constitutes a business education program.

Business education student. A student who is registered in a minimum of fifteen high school credits in business education courses and who is not also registered in a matriculation program.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature will consist of three sections. In the first section, attention will be directed to general theoretical considerations concerning aspirations and expectations. In the second and third sections respectively, attention will be directed to research conducted in the United States and to research conducted in Canada concerning the relationship of sex, mental ability, socio-economic level, job experience, parents, school authorities, and peers, to the aspirations and expectations of youth.

Theoretical Considerations

Historical development. Lewin, drawing from work in the early 1930's by Hoppe, who (according to Lewin) performed the first experiment directed toward analysis of the aspiration phenomena; Dembo, who introduced the concept of level of aspiration; and Jucknat, who investigated the effect of success and failure on level of aspiration, concluded that feeling of success raises the level of aspiration.¹ Lewin also concluded, from a study by Fales,

¹Kurt Lewin, et al., "Level of Aspiration," Personality and the Behavior Disorders, J. McV. Hunt, editor (New York: The Ronald Press Company, 1944), I, 333-378.

that the level of aspiration is highly dependent on early training.²

Festinger found that if a person felt he was competing with a group perceived to have higher ability, he lowered his level of aspiration for a given task. Conversely, if a person felt he was competing with a group perceived to have lesser ability, his level of aspiration rose.³ Indications have also been found that knowledge of results on a test raises or lowers the level of aspiration on a following test, depending on perceived success or failure.⁴

Finally, the degree of motivation appears to have an effect on the level of aspiration. Diggery and Morlock found that people who believe that they are working for an important outcome of a successful performance have a higher overall level of aspiration and a lower overall probability of success than those who feel that the result of doing well is relatively trivial. It was found that as level of

²Ibid., p. 355.

³Leon Festinger, "Wish, Expectation, and Group Standards as Factors Influencing Level of Aspiration," The Journal of Abnormal and Social Psychology, XXXVII, 2 (April, 1942), 199-200.

⁴Robert F. Weise, "Aspirations and Expectations: A Dimensional Analysis," The Journal of Social Psychology, LIII (April, 1961), 254.

aspiration increases, probability of success generally declines.⁵

Current opinion. Super has suggested that enrollment in a high school program may be looked upon as a form of occupational choice.⁶ A link is thus provided between factors underlying a student's choice of program in high school and his choice of occupation.

In formulating a theory of occupational choice, Ginzberg suggested that choosing an occupation is a developmental process. He postulated that the process starts with a fantasy period, extending approximately from ages six to eleven. Any and every type of choice is made during this period as children are unaware of the barriers which stand in their way. The fantasy period is followed by a period of tentative choices, extending from early to late adolescence, when the aspirants tend to vacillate from one occupation to another in their thinking. Four stages are identified in this period, beginning with the "interest" stage, where the child of 11 or 12 makes his choice primarily in terms of his likes and interests. The second stage, from 13 to 14, is termed the "capacity" stage,

⁵James C. Diggery and Henry C. Morlock, Jr., "Level of Aspiration or Probability of Success," Journal of Abnormal and Social Psychology, LXIX, 3 (1964), 288.

⁶Donald E. Super, The Psychology of Careers (New York: Harper and Brothers, 1957), p. 203.

during which the individual becomes aware of such external factors as preparation and training for an occupation. Approximately at age 15 to 16 the "value" stage is reached, which is characterized by the adolescent's attempt to find a place for himself in society. The fourth and last stage of the period of tentative choices is described as the "transition" stage, occurring at about age 17, where the individual, approaching the end of high school, must decide on either work or further education. Because he knows that his present state of life will not continue, the adolescent usually approaches the end of high school with apprehension concerning the future. Adolescents in the transition stage no longer rely solely on their parents for advice, but look to key persons for help in narrowing down their choice of occupation. When the final choice is made the person is said to have passed from the tentative period to the period of realistic choice.⁷

"Accident" and "impulse" theories of occupational choice have been discounted by Ginzberg on the ground that the former tends to overstress external factors, and the latter internal factors. In both of these theories, the individual is assumed to be largely passive with respect to the choice process. Both hold that the individual cannot do anything about the situation; one contends that he makes

⁷Eli Ginzberg, et al., Occupational Choice (New York: Columbia University Press, 1951), pp. 59-117.

a choice because he must respond to the overwhelming impact of a stimulus or of a reality situation; the other, that he is propelled by the strength of his basic impulses.⁸ Ginzberg has further suggested that choices involve an element of compromise between interests, capacities, values, and employment opportunities, and that such choices are largely irreversible.⁹

Occupational choice may not, however, be quite as rational a process as the foregoing would imply. Slocum has hypothesized that some decisions are made solely on the basis of impulse. He does, however, agree with Ginzberg in stating that he feels that occupational decision-making is seldom a one-time event, and that the selection of an occupational field consists of a series of decisions, some irreversible for practical purposes, while others are tentative and subject to reconsideration and later reversal or confirmation.¹⁰

A connection between the rational and impulse theories of occupational choice, which are quite opposite points of view, can, perhaps, be found in the following quotation from Super:

⁸Ibid., p. 23.

⁹Ibid., pp. 185-186.

¹⁰Walter L. Slocum, Occupational Careers (Chicago: Aldine Publishing Company, 1966), pp. 208-211.

Furthermore, decisions of importance concerning occupations are not generally made overnight although it sometimes seems as though they were. They are more likely to be conclusions reached after a problem has been lived with for some time. They are the culmination of long-drawn-out thought processes and experiences. At one point the question is decided in terms of the kind of high school to be attended and the kind of course to take, at another in terms of what, if any, kind of higher education is to be obtained, at still another in terms of what kind of job to look for. Then the question may resolve itself into which of several openings offers the best prospects of success and satisfaction in both the immediate and the ultimate future. But this does not mean that this objective must be specifically and clearly defined at any particular stage. On the contrary, it is generally best kept rather vague at first, each decision being both a result of that goal and a factor in clarifying it. Increasing experience and knowledge help to define the objective.¹¹

Ignorance of the meaning of occupational titles may restrict one's true level of aspiration. If a person is conversant with only low-status occupations, then he may be forced to choose from among these.¹² Furthermore, job titles may mislead the aspirant. An example of this is the modern-day "sanitary supervisor" who, a few years ago, was better known by the more accurate title of "sweeper".¹³ Also, in connection with occupational descriptions,

¹¹Donald E. Super, The Dynamics of Vocational Adjustment (New York: Harper and Brothers, 1942), pp. 172-173.

¹²I. W. Miller and A. O. Haller, "A Measure of Level of Occupational Aspiration," Personnel and Guidance Journal, XLII, 5 (January, 1964), 450.

¹³J. Kenneth Bradford, "The Obsolescence of Occupational Titles," Journal of College Placement, (April-May, 1967), 89.

employment brochures often glamorize the virtues of an occupation instead of presenting a true concept of the job.¹⁴

To further confuse the aspirant, many occupations unheard of a decade ago are becoming commonplace, while a substantial number of long-standing jobs are disappearing. Fair has pointed out in comparing the 1949 and 1965 editions of the Dictionary of Occupational Titles, published by the United States Employment Service, that some 7,000 job titles have been dropped in the later edition due to obsolescence or automation. At the same time, 6,000 new titles have been added, which means that one in six of the 36,000 job titles in the 1965 edition of the Dictionary is new.^{15, 16, 17}

The first choice of occupation that an individual makes may not be a wise one, and the aspirant may find himself faced with re-training. Draper, in pointing up the

¹⁴Gerald O. Bryan, "Vaccine Instead of Aspirin," The Balance Sheet, XLIX, 1 (September 1967), 14.

¹⁵Donald C. Fair, "Vocational Plans of Alberta Youth" (paper read at the Conference on Post-Secondary and Continuing Education, Edmonton, Alberta, November, 1966), p. 1.

¹⁶United States Department of Labor, Dictionary of Occupational Titles (second edition: 2 vols.; Washington, D.C.: United States Government Printing Office, 1949).

¹⁷_____, Dictionary of Occupational Titles (third edition; 2 vols.; Washington, D.C.: United States Government Printing Office, 1965).

need for a broad focus in vocational courses in high school, has suggested that young persons can expect to re-train as many as three to five times in their working lifetime.¹⁸

In conclusion, theorists appear to be at variance regarding the process of occupational choice. Furthermore, the aspirant may be restricted by a lack of knowledge of occupations. It may be, as suggested by Hoppock, that a person could stumble into an appropriate occupation, but a wise choice definitely requires information about what occupations are available, what they require, and what they offer.¹⁹ Hoppock appropriately summarized the current opinion on the process of occupational choice as follows:

It is obvious that knowledge of occupations can be effectively applied only when one knows something about oneself. It is equally obvious that knowledge of oneself can be effectively applied to the choice of an occupation only when one knows something about occupations. Either without the other is incomplete.²⁰

¹⁸Dale C. Draper, "Vocational Education and the Comprehensive School," The Bulletin of the National Association of Secondary School Principals, LI, 319 (May, 1967), 112.

¹⁹Robert Hoppock, Occupational Information (second edition; New York: McGraw-Hill Book Company, Inc., 1957), p. 5.

²⁰Ibid.

Factors Affecting Choice: Research in the United States

There is evidence to indicate that educational and occupational aspirations and expectations differ between the sexes. Flanagan, in the "Project Talent" survey of secondary school students across the United States, found differences between the sexes in aspirations and expectations for clerical employment. Details of his findings have been reported on pages 4 and 5 of this thesis. Flanagan also found that almost one third of the boys but less than one quarter of the girls surveyed expected to graduate from college. Only about 10 per cent of the boys but almost 20 per cent of the girls reported that they were completely decided in their choice of occupation. On the other hand, over nine per cent of the boys and about five per cent of the girls in Flanagan's sample reported that they were completely undecided in their choice of occupation.²¹

Brookover compared educational aspirations and educational plans with academic achievement in a midwestern United States city. Differentiation between aspirations and plans was made by defining the former as "wishes or desires", and the latter as "a perception of what one expects to be doing or have accomplished at some future

²¹John C. Flanagan, et al., The American High School Student (Pittsburgh: Project Talent Office, University of Pittsburgh, 1964), pp. 5-28 to 5-31.

date.²² In this study, over 2,000 students enrolled in grades eight to eleven inclusive were surveyed using grade point average in English, social studies, mathematics and science as a measure of academic achievement. It was found that at each grade level, correlations between educational plans and achievement were greater than correlations between educational aspirations and achievement. Also, correlations between plans and achievement decreased systematically from grades eight through eleven. Statistical control for variation in educational plans reduced to near zero the correlations between educational aspirations and achievement (.11, .01, .04, and .05). On the other hand, statistical control for variation in aspirations did not reduce to near zero the correlations between educational plans and grade point average (.20, .26, .19, and .23).²³ Since both desire for a particular level of schooling (aspirations) and plans for a particular educational level (expectations) showed a decreased association with academic achievement in the later years of high school, the following conclusion was reached in this study:

We, therefore, question whether school programs designed to elevate the educational

²²Wilbur B. Brookover, et al., "Educational Aspirations and Educational Plans in Relation to Academic Achievement and Socio-Economic Status," The School Review, LXXV (December, 1967), 392.

²³Ibid., p. 398.

aspirations of high school students are likely to bring about higher academic achievement, especially if the programs are initiated later in the high school years. "Motivating" a pupil to "want" to graduate from high school, or even to want to go on to college, may be quite futile if we view this as sufficient means for enhancing his school achievement.²⁴

The socio-economic level of the family has also been found to have a bearing on the educational and occupational aspirations of students. For example, in a study designed to determine to what extent differences in high school academic achievement, socio-economic status, level of aspiration, and intelligence contribute to success in business education in college, Bailey found a relationship between socio-economic status and the ability to set accurate goals. The study was limited to 152 female students enrolled in the Department of Business Education at the Norfolk Division of Virginia State College. Level of aspiration was defined as the grades the students expected to get at the end of the current semester compared with grades they had received at the end of the preceding semester. It was found that individuals from higher socio-economic status backgrounds were generally less accurate in estimating expected performance in terms of grade point averages than those from lower socio-economic levels. The higher the socio-economic status, the greater was the

²⁴Ibid., p. 399.

tendency to set goals which were overly optimistic in terms of the student's past academic history.²⁵ The study also found that I.Q. was a factor in goal-setting. Students with higher I.Q.'s tended to set goals more commensurate with past achievement than did individuals with lower I.Q.s.²⁶

Empey, in a 1954 study of high school seniors conducted across the state of Washington, found that sons of low-occupational status fathers had lower absolute occupational aspirations than sons of higher status fathers. Looking at the data from a relative rather than an absolute point of view, however, it was found that although the lower status youth did not aspire to professional and managerial occupations, they did name occupations that were one or perhaps two status levels above their father's occupational level.²⁷

With reference to job experience and aspirations, Slocum has suggested that interests developed through actual work experience are very important in crystallizing

²⁵Rubelia Johnson Bailey, "The Relationship of Educational Background, Socio-Economic Status, Level of Aspiration, and Intelligence to Success in Business Education" (unpublished Doctoral dissertation, Temple University, Philadelphia, 1965), p. 151.

²⁶Ibid., p. 153.

²⁷LaMar T. Empey, "Social Class and Occupational Aspiration: A Comparison of Absolute and Relative Measurement," American Sociological Review, XXI, 6 (December, 1956), 703-709.

occupational preferences.²⁸ However, child labour laws and other government regulations such as accident and unemployment insurance developed to protect workers, have undoubtedly eliminated many employment opportunities for young people.²⁹ In studies conducted by Slocum in the state of Washington, it was found that the challenge presented by an actual employment situation can provide sufficient stimulation to warrant making available to adolescents work experiences that they will consider meaningful and significant rather than routine or casual. From these studies Slocum concluded that work experience must be purposeful or it may not provide significant learning.³⁰

Parents, school authorities, and peers have been found to have a decided influence on the aspirations of youth. Berdie has suggested that the influence of the family, with parents in particular, is perhaps the most important factor in determining whether or not children utilize their potential.³¹

Kahl surveyed 24 "common-man" or working class boys and their parents in two industrial-residential suburbs of Boston, using both interview and questionnaire technique.

²⁸Slocum, op. cit., pp. 212-213.

²⁹Ibid., pp. 222-223.

³⁰Ibid.

³¹Ralph F. Berdie, After High School -- What? (Minneapolis: The University of Minnesota Press, 1954), p. 121.

All of these boys were considered by the researcher to have the mental ability to go to college, yet one-half of them did not have college aspirations. The outstanding finding in this study was that an intelligent "common-man" boy was not college oriented in high school unless he had a very special reason. Behind all reasons stood one pre-eminent force: parental pressure.³²

Parental pressure on the aspirations of youth may also be exerted in a negative direction. Ginzberg found that parents, especially those from the lower socio-economic levels, may advise their children to avoid certain occupations, with health and safety hazards high among the reasons for such avoidance.³³

Notwithstanding the importance of parental influence, teachers may play a decisive role in determining a student's educational and occupational aspirations. Ellis and Lane, in a study of a sample of Stanford University undergraduates from lower socio-economic homes, found that 85 per cent of the students surveyed named high school teachers as having influenced them to go to college. Fully 33 per cent named a high school teacher as being the most influential person

³²Joseph A. Kahl, "Educational and Occupational Aspirations of Common Man Boys," The Harvard Educational Review, XXIII (Summer, 1953), 201.

³³Ginzberg, et al., op. cit., p. 234.

as far as college plans were concerned.³⁴

The peer element, too, has been found to be an important influence on the educational and occupational aspirations of students. Wilson, in a study which looked primarily at the effect of school climate on the educational aspirations of high school boys, found that boys from lower-class families were more likely to have high educational aspirations if they attended a predominantly middle-class school, and that boys from upper-class families were more likely to have modest educational aspirations if they attended a predominantly middle-class school. Wilson found that 93 per cent of the sons of professionals in upper-class schools wanted to go to college, while less than two-thirds of the sons of professionals attending lower-class schools wished to do so. Three-fourths of the children of self-employed artisans and skilled manual workers aspired to college in upper-class schools, while considerably fewer than half of them did so in lower-class schools.³⁵ On the bases of these data, Wilson concluded:

³⁴Robert A. Ellis and W. Clayton Lane, "Structural Supports for Upward Mobility," American Sociological Review, XXVIII, 5 (October, 1963), 751.

³⁵Alan B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," Class, Status and Power, Reinhard Bendix and Seymour Lipset, editors (second edition; New York: The Free Press, 1966), p. 338.

It is plausible to assume that middle-class youth, even when living in a predominantly working-class neighborhood, will be stimulated by their families toward educational diligence and to aspire to high-status occupations. The fact that the aspiration of these children is depressed when they attend a working-class school is more compelling evidence for the effect of the school milieu and peer-group norms than is the fact of the upward mobility of working-class youth in middle-class schools.³⁶

The peer group influence has been found to affect the choice of program in high school as well. Hollingshead reported the following in an interview with a student:

If you take a college preparatory course, you're better than those who take a general course. Those who take a general course are neither here nor there. If you take a commercial course, you don't rate. It's a funny thing, those who take college preparatory set themselves up as better than the other kids.... You could take typing and shorthand and still rate, but if you took a straight commercial course you couldn't rate.³⁷

The influence of the peer group, however, must not be over-emphasized. In response to the question: "How important to you is each of the following as a reason for going to college?", Project Talent found that 35.7 per cent of the boys and 26.5 per cent of the girls in the high schools surveyed named "father wants me to go" as being extremely or very important. Approximately thirty-eight per cent of the boys and 28.8 per cent of the girls

³⁶ Ibid., p. 341.

³⁷ August B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949), p. 169.

named "mother wants me to go" as being extremely or very important. Teachers were named by 23.7 per cent of the boys and 19.2 per cent of the girls, while peers were named by only 16.3 per cent of the boys and 10.2 per cent of the girls as being extremely or very important influences on their college aspirations.³⁸

Finally, Joiner hypothesized that students' educational plans are influenced more by parents than by friends. He hypothesized that students' educational plans are more dependent on the students' perceptions of the educational expectations held by parents than on the students' perceptions of the educational expectations held by friends. Correlation coefficients between educational plans and perceptions of parental expectations were found to be .64, .73, and .81 for the 8th, 9th, and 10th grades respectively. Coefficients between educational plans and perceptions of friends' expectations were found to be .57, .62, and .70 for the three grades. On the basis of these findings the hypothesis was accepted, and Joiner was able to assert that students' educational plan levels were more dependent upon their perceptions of the educational expectations held by parents than upon their perceptions

³⁸Flanagan, et al., op. cit., pp. 5-28 to 5-29.

of the educational expectations held by friends.³⁹

Factors Affecting Choice: Research in Canada

In Canada, as in the United States, there is evidence to indicate that differences in aspirations and expectations exist between the sexes. In a study of two Ontario communities, termed "Paulend" and "Croydon", Hall and McFarlane noted that the school is a place where the girls thrive and the boys fail. They concluded that, vocationally, the school does an admirable job of preparing the girls, especially since the work world, particularly in clerical occupations, is showing definite signs of feminine growth, while at the same time very few boys are being employed in such occupations.⁴⁰

Fair, in surveying the first-choice post-high school plans of Alberta youth, found that 8 per cent of the grade twelve boys and 18 per cent of the grade twelve girls indicated that they intended to get a job other than with parents. While 1 per cent of the boys planned to enter

³⁹ Lee M. Joiner, et al., "Student Definitions of the Educational Expectations of Others and the Development of Educational Plans: A Longitudinal Study of High School Males" (paper read at the American Educational Research Association Meetings, Chicago, Illinois, February 18, 1966), pp. 15-16.

⁴⁰ Oswald Hall and Bruce McFarlane, Transition from School to Work, Report No. 10, Department of Labour, Research Program on the Training of Skilled Manpower (Ottawa: Queen's Printer, 1962), pp. 65-66.

business college, 10 per cent of the girls indicated this plan. On the other hand, 19 per cent of the boys but only 6 per cent of the girls named a technical institute as their first choice after high school. Thirty-seven per cent of the boys and 27 per cent of the girls named "enter university" as their first choice.⁴¹

Similar figures were reported for grade eleven students, except in the case of students who planned to get a job other than with parents where 5 per cent of the boys and 11 per cent of the girls indicated this as their first choice. Also, slightly fewer (17 per cent) of the grade eleven boys planned to go to technical school and slightly more (30 per cent) of the grade eleven girls planned to go to university.⁴²

Sex differences were also found in the realizability of these plans. In a follow-up to Fair's study, Kreutz found that 57.0 per cent of the grade twelve girls realized their first choice of plans within one year after grade twelve, while only 42.4 per cent of the boys reported realization of plans in this time period. Although the statistical analysis showed the difference to be of limited practical significance, Kreutz did conclude that girls,

⁴¹D.C. Fair, "Vocational Plans of Alberta Youth," op. cit., (Appendix II, Provincial Data Results), p. 2.

⁴²Ibid.

because they are thinking in terms of marriage, deliberately chose plans which were more "practical" or more easily and quickly realized in terms of their own intellectual and other resources.⁴³ This conclusion is in accordance with research findings in the United States by Slocum,⁴⁴ Berdie,⁴⁵ Tyler,⁴⁶ and Ginzberg.⁴⁷

Mental ability, too, has been related to the aspirations of youth in Canadian research. Evidence to suggest that many of the academically talented are not aiming for goals commensurate with their abilities was found by Jackson and Fleming, who, in 1956, estimated that the talents of no more than one-third of the gifted in Canada were being utilized to the full. They called this "an admirable job of squandering the priceless human resources available to us".⁴⁸ This observation was confirmed by Hall and McFarlane in Ontario. These researchers, using

⁴³Norma B. Kreutz, "The Realizability of Vocational Plans of Grade Twelve Students in Alberta" (unpublished Master's thesis, The University of Alberta, Edmonton, 1968), pp. 21-22.

⁴⁴Slocum, op. cit., p. 213

⁴⁵Berdie, loc. cit.

⁴⁶Leona E. Tyler, "The Future of Vocational Guidance," Vocational Counseling: A Reappraisal in Honor of Donald G. Patterson, E. G. Williamson, editor (Minneapolis: The University of Minnesota Press, 1961), p. 61.

⁴⁷Ginzberg, et al., op. cit., p. 175.

⁴⁸R.W.B. Jackson and W.G. Fleming, "Who Goes to University? -- English Canada," Canada's Crisis in Higher Education, C.T. Bissell, editor (Toronto: University of Toronto Press, 1957), p. 76.

I.Q. as a basis for predicting probable academic success, followed a group of students from high school to university. They found that only one student in seven of those likely to succeed in higher education actually managed to reach university.⁴⁹

Fricke, on the other hand, found in comparing mental abilities of grade eleven students aspiring to occupations with the mean mental abilities of persons already engaged in such occupations, that approximately one-sixth of the students chose occupations with a mean mental ability level at least one level below their mental ability level, but more than two-thirds of the students chose above their mental ability level. His assumption was that the average I.Q. of an occupational group indicates approximately the degree of intelligence that is necessary for effective work in that occupation. He concluded that the students studied were not very realistic in their choice of occupation and that their level of occupational aspiration was too high.⁵⁰

With reference to socio-economic level as a factor influencing the aspirations of youth, Porter, in reporting Canadian census data for the 1950's, wrote that fathers in the highest socio-economic strata had almost three-quarters

⁴⁹Hall and McFarlane, op. cit., p. 38.

⁵⁰Benno Gerry Fricke, "Are the Grade XI Students in Edmonton Making Vocational Plans in Line With Their Mental Ability?" (unpublished Master's thesis, The University of Alberta, Edmonton, 1950), pp. 49-56.

of their children aged 14 to 24 in school, while unskilled manual workers had only a little over one-third of their children of the same age group in school.⁵¹ The implication is that the socio-economic level of the family appears to be directly related to whether the student stays in school at the secondary and post-secondary levels.

Hall and McFarlane classified the children of "Paulend" into two social class categories according to father's occupation. The two categories used were "manual" and "non-manual". The researchers found, that of those students leaving school in grades nine and ten, 44 per cent came from homes of manual workers while only 24 per cent were the children of non-manual workers. On the other hand, 35 per cent of the children of non-manual workers reached senior matriculation, while only 15 per cent of the children of manual workers attained this level of education.⁵²

A recent study in the Fort William and Port Arthur areas of Ontario, conducted by Pavalko and Bishop, further emphasized the importance of socio-economic status to educational aspirations. These researchers asked students in grades twelve and thirteen if they were going to college. It was assumed that the responses would reflect rather

⁵¹John Porter, The Vertical Mosaic (Toronto: University of Toronto Press, 1965), p. 180.

⁵²Hall and McFarlane, op. cit., p. 17.

realistic plans since at this stage of the students' education the researchers thought it quite likely that considerable thought had been given to future educational plans. They hypothesized that the college plans of Canadian high school students are directly related to the socio-economic status of their families. The hypothesis was accepted and, furthermore, the researchers found that differences in college plans still persisted for socio-economic categories even when the factors of sex and intelligence were simultaneously controlled.⁵³

In a study of 1,844 grade eleven and twelve students in three sample areas of Manitoba, Siemens compared level of educational aspiration and level of occupational aspiration with selected aspects of the family situation, including socio-economic status. Level of educational aspiration was determined by a forced-choice item ranging from "no further education" to "university". Level of occupational aspiration was measured employing Haller's Occupational Aspiration Scale.⁵⁴ The results showed that 75.0 per cent of the boys and 68.1 per cent of the girls

⁵³Ronald M. Pavalko and David R. Bishop, "Socio-Economic Status and College Plans: A Study of Canadian High School Students," Sociology of Education, XXXIX, 3 (Summer, 1966), 292-296.

⁵⁴Leonard B. Siemens, "The Influence of Selected Family Factors on the Educational and Occupational Aspiration Levels of High School Boys and Girls" (unpublished Master's thesis, University of Manitoba, Winnipeg, 1965), pp. 45-49.

who ranked highest in socio-economic status aspired to university while only 31.4 per cent of the boys and 14.8 per cent of the girls who ranked lowest in socio-economic status had this aspiration. Approximately 60 per cent of the boys and 66.7 per cent of the girls who ranked highest in socio-economic status displayed a high level of occupational aspiration, while 26.8 per cent of the boys and 27.0 per cent of the girls in the lowest socio-economic level had this aspiration. On the basis of these data Siemens concluded that educational and occupational aspiration levels increase with increasing socio-economic status of the family.⁵⁵

Patterson recently examined the relationships which may exist concerning the mental abilities, occupational aspirations, and level of father's occupation of high school students in Edmonton. He compared the aspirations of students in the general, vocational and academic programs with the aspirations of students who had failed to meet high school entrance requirements but who had been allowed to enrol in high school in a special program. These students, termed "special-vocational" students, were enrolled in vocational courses and in vocationally-oriented academic

⁵⁵Ibid., p. 62.

courses.⁵⁶ In connection with father's level of occupation and aspirations of students, it was found that students in the sample tended to aspire to occupations which were one to one-and-one-half levels higher than their fathers' occupational level.⁵⁷ A similar finding was reported in the United States by Empey.⁵⁸ Patterson also found that special-vocational boys aspired to higher occupational levels than general or vocational boys. This, according to Patterson, indicated a lack of realism on the part of the boys in the special-vocational program. He also implied that educators have a responsibility to inform students of the type of occupations which may be open to them on graduation.⁵⁹ A further finding of this study, also in connection with socio-economic level, was that the program in which the student was enrolled was not dependent on the father's level of occupation. The significance of this, according to Patterson, is that teachers often tend to associate special-vocational students with a lower socio-economic class of people than the academic, vocational, and general students.⁶⁰ The only

⁵⁶ John Paton Patterson, "An Analysis of Occupational Aspirations of Special-Vocational and High School Students" (unpublished Master's thesis, The University of Alberta, Edmonton, 1968), p. 6.

⁵⁷ Ibid., pp. 40-41.

⁵⁸ Empey, loc. cit.

⁵⁹ Patterson, op. cit., pp. 60-61.

⁶⁰ Ibid., pp. 61-62.

variable found to be statistically significant in distinguishing between the four programs was intelligence.⁶¹

The financial resources to which the student has access may also have a bearing on his aspirations and expectations. Porter has pointed out that "education costs money and regardless of how free it may be, lower income families tend to take their children out of school at an earlier age and put them to work."⁶² Such families tend, apparently, to weigh the value of schooling unfavourably against the extra income a child could bring in if he dropped out and went to work.⁶³

Fleming, in following students who had graduated from grade thirteen in 1956 into first-year university as part of the Atkinson Study in Ontario, found that about half of the students who reached university had fathers who were employed in professional, managerial, and executive positions -- a level reached by only about 16 per cent of Ontario men thirty-five years of age and over.⁶⁴ Fleming had this to say concerning his finding:

Although parents who achieve a high degree of occupational success may tend to have brighter-

⁶¹Ibid., p. 58.

⁶²Porter, op. cit., p. 168.

⁶³Ibid., p. 179.

⁶⁴W.G. Fleming, Research into the Utilization of Academic Talent (Toronto: Ontario College of Education, 1959), p. 14.

than-average children, it is impossible to believe that the 84 per cent classified in the lower levels could not and should not be making a greater contribution to the university population.⁶⁵

As part of the same study, Pipher followed up two other groups of Ontario grade thirteen students. The first group was composed of students who had stated in grade thirteen that they intended to go to university and the second group had stated in grade thirteen that they were uncertain about going to university. None of the students in either group subsequently went to university, and Pipher endeavoured to find out why they did not go. The follow-up was conducted about four years after these students had been in grade thirteen. Financial difficulty was listed as the main factor for not attending university by 14 per cent of the first group and by 28 per cent of the second group.⁶⁶ More than half of the students stated that they would have attended university if a scholarship or bursary had been available.⁶⁷

In an Alberta study, Ackroyd and Roberts sent a questionnaire to all students in the province who graduated

⁶⁵Ibid.

⁶⁶J.A. Pipher, Barriers to University -- A Study of Students Prevented From or Delayed in Attending University (Toronto: Ontario College of Education, 1962), pp. 12-13.

⁶⁷Ibid., p. 15.

from grade twelve in 1949 with university entrance requirements, but who did not go to university. There were 201 usable responses out of 399 people surveyed, and almost half of the respondents indicated financial difficulty as their reason for not attending university.⁶⁸

Caution is to be observed in comparing Pipher's findings with those of Ackroyd and Roberts. In the first place, the Alberta study took place almost ten years before the Ontario study, and, secondly, the Ontario study surveyed only those students who, in the last year of high school, gave some indication that they aspired to university. The Alberta study, on the other hand, surveyed all matriculating students who did not subsequently attend university.

In another part of the Atkinson Study, Fleming compared the first-year university performance of students who had been employed during high school with the first-year university performance of students who had not been employed during high school. He found identical percentages of passes, failures, and withdrawals in the two groups of students.⁶⁹ On the basis of his findings, Fleming concluded:

⁶⁸A.O. Ackroyd and W.G. Roberts, "A Study of the Post-School Occupations of Students Who Graduated with University Matriculation from Alberta High Schools in 1949" (unpublished Master's thesis, The University of Alberta, Edmonton, 1952), p. 51.

⁶⁹W.G. Fleming, Personal and Academic Factors as Predictors of First Year Success in Ontario Universities (Toronto: Ontario College of Education, 1959), pp. 4-5.

The evidence, however, is definitely against the popular belief that those who obtain summer employment while in secondary school acquire a sense of responsibility or some other desirable trait that helps to ensure university success.⁷⁰

Part-time employment during high school may not, therefore, be a significant factor affecting educational and occupational aspirations and expectations of youth.

With reference to the influence of parents, school authorities, and peers on the educational and occupational aspirations of youth, at least three recent Alberta studies are pertinent.

In a study of social and psychological factors associated with grade nine pupil achievement of students in northeastern Alberta, Dockrell reported the following:

Parents who were low in their vocational aspirations had children who were doing poorly in school. High parental aspirations were, however, no guarantee of success. Many parents entertained unrealistic aspirations for children who were doing poorly in school. The boys themselves were in general more realistic. Perhaps their experiences with departmentals had convinced the poorer students that they could not aspire to high status jobs. For girls there was no association. The cultural pattern which stresses marriage and bars women from the more responsible posts in all professions, particularly teaching, is perhaps the basic factor.⁷¹

Achievement in this study was based on average standing of

⁷⁰Ibid.

⁷¹W.B. Dockrell, "Motivation for Learning," School Achievement in Rural Alberta, B.Y. Card, et al. (Edmonton: The First Edmonton District of the Alberta Teachers' Association, 1966), pp. 61-63.

the pupil in the grade nine departmental examinations, and parental aspirations for the students were obtained by personal interviews with the pupils' parents.

In a study of prestige of programs and curricular and extra-curricular activities in high school, Kelland selected a sample of grade eleven students from three composite high schools in Alberta. Schools were selected on the bases of their large size and wide variety of course offerings. Involved in the study were 185 parents, 297 students, and 110 teachers. The study found differences in prestige attached to the various courses in high school, with the matriculation program ranking highest for both sexes when rated by parents, teachers, and students. These same groups ranked the commercial (business education) program second in prestige for girls.⁷² With reference to the relative prestige of curricular and extra-curricular activities, the study revealed that students favoured extra-curricular activities over curricular activities for boys. The prestige that students accorded extra-curricular activities for girls, however, varied as different aspects of the extra-curricular program were considered. In all cases, parents and teachers favoured curricular activities over extra-curricular activities for both boys and girls.

⁷²Newman Kelland, "A Study of the Prestige of Certain Aspects of The Educational Program in Alberta Composite High Schools" (unpublished Master's thesis, The University of Alberta, Edmonton, 1959), p. 87.

On the bases of these findings Kelland concluded that both boys and girls are caught between two sets of conflicting expectations, with their parents and teachers on the one hand, and their fellow students on the other.⁷³

Finally, in the survey "Vocational Plans of Alberta Youth" Fair, in reporting results for grade eleven students, found that 87 per cent of the boys and 82 per cent of the girls said that their mother had either strongly encouraged them or given them some encouragement to continue their education whereas the father was named by 77 per cent of the boys and 71 per cent of the girls. Teachers were named by 51 per cent of the boys and 53 per cent of the girls whereas guidance counselors were named by 45 per cent of the boys and 46 per cent of the girls. Similar findings were reported for grade twelve students.⁷⁴

The study also found that 7 per cent of the grade eleven boys and 15 per cent of the grade eleven girls said that their mother had been the one person who most influenced their occupational choice whereas the father was named by 17 per cent of the boys and 7 per cent of the girls. Teachers were named by 4 per cent of the boys and 5 per cent

⁷³Ibid., p. 132.

⁷⁴D.C. Fair, "Vocational Plans of Alberta Youth," op. cit., (Appendix II, Provincial Data Results), pp. 20-21.

of the girls whereas guidance counselors were named by 2 per cent of the boys and 3 per cent of the girls. Similar findings were reported for grade twelve students.⁷⁵

Summary

From the foregoing review of the literature it appears that choice of program in high school and the student's eventual career goal are related to the factors of sex, mental ability, socio-economic level, and, possibly, to job experience. In addition, the student's choice of program or career may be influenced by parents, school authorities, and peers.

Sex differences in aspirations are generally evident toward the end of the high school years, when, for girls, prospects of marriage often supersede plans for a permanent career.

High ability students are usually better able than low ability students to fulfill their aspirations, even for professional or semi-professional occupations.

Youth from the lower socio-economic levels have been found to be less optimistic in their educational and occupational aspirations than their higher-status peers. However, lower class youth do display a degree of upward mobility in their aspirations as they generally aspire to

⁷⁵Ibid., p. 16.

occupations that are one to two levels above their father's occupation.

Child labour laws and regulations designed to protect workers have made it very difficult for youth to obtain other than casual or routine employment.

Parental pressure appears to be one of the most important single factors influencing the educational and occupational aspirations and expectations of students of both sexes and of all ability and socio-economic levels.

CHAPTER III

DESIGN AND PROCEDURES

This chapter describes the population, the sample, and the subjects' mental ability, socio-economic, and job experience classifications. It also describes the questionnaire, the procedure for determining levels of educational and occupational aspiration and expectation, the administrative procedure, and the method of analysis.

POPULATION AND SAMPLE

The population consisted of all grade eleven business education students in attendance during April, 1969, in the nine composite high schools in the Edmonton Public School System who were not matriculating and who were registered in at least fifteen high school credits in business education courses. Since a "credit" in Alberta high schools is equivalent to about forty minutes of instructional time per day, each student was registered in business education courses for almost one half of his school day. There were 99 boys and 532 girls in the population.

From the population, a sample of 328 students was randomly selected. School and College Ability Test scores were not available for 15 of the students selected, leaving 313 students for whom complete data were secured. Of the 313 students in the final sample, 50 were boys, representing

50.5 per cent of the population of boys, and 263 were girls, representing 49.2 per cent of the population of girls.

MENTAL ABILITY CLASSIFICATION

Mental ability in this study means the total percentile ranking on the School and College Ability Test (SCAT), Level 3, Form B. In mental ability classification, the total percentile was obtained from students' grade nine records at the Provincial Department of Education. This procedure resulted in a range of percentiles from 1 to 95 with a median of 32.88. For the purposes of this study, students scoring above the median were classified as "high" mental ability level and those scoring below the median were classified as "low" mental ability level. This procedure resulted in 158 "highs" (23 boys and 135 girls) and 155 "lows" (27 boys and 128 girls).

SOCIO-ECONOMIC CLASSIFICATION

For the purpose of this study, socio-economic classification was based on a method of ranking developed by Pineo and Porter which considered the prestige of occupations.¹ In developing their scale, Pineo and Porter selected a sample

¹Peter C. Pineo and John Porter, "Occupational Prestige in Canada," The Canadian Review of Sociology and Anthropology, IV, 1 (February, 1967), 24-40.

of adults across Canada and asked them to rank 204 occupational titles according to the "social standing" of the occupations. Interpretation of the words "social standing" was left to the persons who were doing the ranking. Concerning their sample, Pineo and Porter stated:

Our sample is sufficiently representative of the country on the following variables: province, religious affiliation, occupation, labour force status. It is only slightly biased on three variables: sex, country of birth, and mother tongue. Of these, two were in fact variables upon which the sample was built -- province and sex -- so that some consistency with the census was guaranteed for those two variables.

Our sample fails to match the census on the following variables: age, marital status, official language, years of schooling, and size of community of residence. Middle aged, married people are over-represented. Some correction for the fact that we interviewed only one adult in three-generation households reduces this distortion. The sample is also composed of more bilingual people, more farmers, and more highly educated people than can be explained by sampling fluctuation alone. We appear to have had the most difficulty in obtaining interviews from the non-family individuals in the urban or suburban class.²

As a result of the Pineo-Porter study, occupations were arranged in the following socio-economic groupings:

1. Professional
2. Semi-professional
3. Proprietors, managers, and officials, large
4. Proprietors, managers, and officials, small
5. Clerical and sales
6. Skilled
7. Semi-skilled
8. Unskilled
9. Farmer
10. Not in labour force.³

²Ibid., p. 27.

³Ibid., pp. 36-40.

In the present study, students provided data for socio-economic classification by describing their parents' occupations. The form designed for use in the study appears on page 129 of Appendix A. Although students were asked to provide data concerning the occupation of both parents, in most cases only that of the father was used for socio-economic classification. The mother's occupation was used only when none was given for the father. The occupations were then matched to the Pineo-Porter scale, which gives a numerical value for each occupation. This procedure resulted in a range of scores from 7.3 to 71.3; an approximate division of upper and lower halves was made at the score of 39.3. For the purposes of this study, students with a score of 39.3 and above were classified as "high" socio-economic level whereas those with a score below 39.3 were classified as "low" socio-economic level. This procedure resulted in 152 "highs" (25 boys and 127 girls) and 161 "lows" (25 boys and 136 girls).

JOB EXPERIENCE CLASSIFICATION

Students provided data for job experience classification by checking "yes" or "no" in response to the question: "Have you had any job experience in business or industry?" If they checked "yes" they were asked to describe their job experience as to nature and length. The form designed for use in the study appears on page 129 in Appendix A. To

qualify as job experience, the work had to be performed in a business or an industry and had to be of at least five days duration. On these bases, 165 students (35 boys and 130 girls) were classified as having had job experience and 148 students (15 boys and 133 girls) were classified as having had no job experience.

THE QUESTIONNAIRE

The two-part questionnaire developed by the researcher was a modification of a questionnaire used in a study conducted by the Department of Manpower and Immigration.⁴ The first part of the questionnaire was designed to collect data about the individual; the second part was designed to determine students' reasons for choosing the business education program in high school and to determine the educational levels and career goals students: (1) would like to attain, and (2) expect to attain. Parts I and II of the questionnaire appear on pages 130 to 136 of Appendix A. A pilot study was conducted to assess the feasibility and validity of the questionnaire.

The Pilot Study

The pilot study was conducted at Paul Kane High School,

⁴Department of Manpower and Immigration, Government of Canada, Career Decisions of Canadian Youth: A Compilation of Basic Data (Ottawa: Queen's Printer, 1967), pp. 186-203.

St. Albert, Alberta. St. Albert is a large suburban centre with a population of approximately 10,000 located about five miles north of Edmonton. It was felt that the characteristics of students in this centre would closely resemble those of students in the city of Edmonton itself. Students were selected on the bases of being non-matriculants, in grade eleven, and registered in at least fifteen high school credits in business education courses.

The twenty-two students who answered the questionnaire were encouraged to ask questions concerning any item or the wording of any item they did not understand, and to identify any questions they considered ambiguous. Their questions and comments provided guidance in drafting the final questionnaire.

EDUCATIONAL AND OCCUPATIONAL ASPIRATION AND EXPECTATION

Levels of educational aspiration and expectation were determined by asking students what educational level they would like to attain and what educational level they expected to attain. Students selected one level in each case from a scale ranging from "complete grade eleven" to "graduate degree". Responses to Questionnaire Items 15 and 16 on pages 132-3 of Appendix A provided the data for students' educational aspirations and expectations.

Levels of occupational aspiration and expectation were determined by asking students what occupation or occupations they would like to attain and what occupation or occupations they expected to attain. The occupations were then matched to the Pineo-Porter scale, which places occupations on one of nine levels and gives a numerical value for each occupation.⁵ If a student indicated more than one occupational aspiration or expectation, the occupation rating on the highest level on the Pineo-Porter scale was selected for analysis. If a student indicated more than one occupational aspiration or expectation on the same level, the occupation with the highest numerical value was selected for analysis. Responses to Questionnaire Items 18 and 19 on page 133 of Appendix A provided the data for students' occupational aspirations and expectations.

ADMINISTRATIVE PROCEDURE

The Business Education Questionnaire (pages 130 to 136, Appendix A) was administered to the sample of 313 grade eleven business education students in the Edmonton Public School System during the last two weeks of April, 1969. Because of student absence on the days the researcher was in the schools, 30 of the 313 students received the questionnaire from either the head of the school business education

⁵Pineo and Porter, loc. cit.

department, or from a teacher. The procedure for administering the questionnaire appears on page 139 of Appendix B.

METHOD OF ANALYSIS

Data concerning sex, mental ability level, socio-economic level, and job experience, as well as student responses to questionnaire items in Part II (pages 131 to 136, Appendix A) were coded and keypunched into 80 column cards. Computer Program CROS-4 and the University of Alberta IBM 360/65 data processing system were used to tabulate data by number of responses and percentages and to calculate chi square test of independence and a coefficient of contingency for each questionnaire item.⁶ In testing Hypotheses 1 to 5, cross-classification tables were constructed using a method similar to that outlined by Ferguson.⁷ In these tables, educational aspirations were compared with educational expectations; similarly, occupational aspirations were compared with occupational expectations. A .05 level of significance was set as the minimum value of chi square necessary to accept the null hypothesis.

⁶D. Flathman, "Program CROS-4: Cross Classification with Subdivision" (Edmonton: The University of Alberta, 1968), pp. 1-16. (Mimeographed.)

⁷George A. Ferguson, Statistical Analysis in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1959), pp. 165-169.

In testing Hypotheses 1 (a) and (b), students' educational aspirations were compared with their educational expectations; similarly, their occupational aspirations were compared with their occupational expectations.

In testing Hypotheses 2 (a) and (b), students were categorized by sex and their educational aspirations were compared with their educational expectations; similarly, their occupational aspirations were compared with their occupational expectations.

In testing Hypotheses 3 (a) and (b), students were categorized by sex and mental ability level and their educational aspirations were compared with their educational expectations; similarly, their occupational aspirations were compared with their occupational expectations.

In testing Hypotheses 4 (a) and (b), students were categorized by sex and socio-economic level and their educational aspirations were compared with their educational expectations; similarly, their occupational aspirations were compared with their occupational expectations.

Finally, in testing Hypotheses 5 (a) and (b), students were categorized by sex and job experience and their educational aspirations were compared with their educational expectations; similarly, their occupational aspirations were compared with their occupational expectations. Chapter IV contains the results of the statistical analysis of the study.

CHAPTER IV

ANALYSIS OF DATA, FINDINGS, AND CONCLUSIONS

Chapter IV presents the statistical analyses, the findings, and the conclusions. In the first section of the chapter, analyses, findings, and conclusions related to the stated questions will be reported, and in the second section, analyses, findings, and conclusions related to the hypotheses will be reported. Implications and recommendations based on the findings will be presented in Chapter V.

ANALYSIS AND FINDINGS RELATED TO THE STATED QUESTIONS

Question 1: Why have students chosen the business education program?

In the approach to this question, students were asked to indicate if they had been in any other program in high school, what their main reason was for leaving any previous program, and the program for which they felt they were most suited. Students were also asked to indicate which programs were generally regarded by students as the best and poorest programs for boys and girls and which programs were generally regarded by students as leading to the best and poorest jobs for males and females. Finally,

students were asked in three forced-choice items to indicate their main reason for taking business education. Items 1 to 14 of the Business Education Questionnaire are related to Question 1.

It was found that 76.9 per cent of the students reported that they had not been in a program other than business education. The matriculation and general programs accounted for 8.3 and 9.9 per cent respectively of the students who had been in a program other than business education. Chi square test of independence at the .05 level of significance indicated no relationship between sex and previous program in high school which means that sex had no significant effect on responses when students were asked to name their previous program. Complete data are given in Table I.

Ten per cent of the boys indicated poor marks as the reason for leaving a previous program while 8 per cent of the girls indicated "it did not lead to good job opportunities" as the reason for leaving a previous program. Complete data are given in Table II on page 58.

When students were asked to indicate the program they thought they were most suited for, Table III on page 59 shows that only 45.4 per cent named business education. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and student responses which means that sex had a significant effect on

TABLE I
PREVIOUS PROGRAM IN HIGH SCHOOL

Programs	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Technical-Vocational	2	4.0	4	1.5	6	1.9
Matriculation-Technical	0	0.0	0	0.0	0	0.0
Business Education	30	60.0	210	80.2	240	76.9
Matriculation	7	14.0	19	7.3	26	8.3
Matriculation-Business Education	2	4.0	6	2.3	8	2.6
General	9	18.0	22	8.4	31	9.9
Other	0	0.0	1	0.4	1	0.3
Total	50	100.0	262	100.1	312	99.9

$$X^2 = 10.413 \quad D/F = 5 \quad P = .064336 \quad C = .1797$$

TABLE II
MAIN REASON FOR LEAVING PREVIOUS PROGRAM

Reasons	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Students who had not been in another program in high school	31	62.0	211	80.5	242	77.6
Previous program did not lead to good job opportunities	3	6.0	21	8.0	24	7.7
Marks were not good enough	5	10.0	8	3.1	13	4.2
Previous program did not lead to further education	4	8.0	0	0.0	4	1.3
Too much work in previous program	2	4.0	0	0.0	2	0.6
Don't know or can't remember	1	2.0	1	0.4	2	0.6
None of the above reasons	4	8.0	21	8.0	25	8.0
Total	50	100.0	242	100.0	312	100.0

$$\chi^2 = 40.099 \quad D/F = 6 \quad P = .000000 \quad C = .3375$$

TABLE III
PROGRAM FOR WHICH BUSINESS EDUCATION STUDENTS FELT
MOST SUITED

Programs	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Technical-Vocational	6	12.0	4	1.5	10	3.2
Matriculation-Technical	1	2.0	1	0.4	2	0.6
Business Education	11	22.0	131	49.8	142	45.4
Matriculation	1	2.0	4	1.5	5	1.6
Matriculation-Business Education	6	12.0	16	6.1	22	7.0
General	1	2.0	7	2.7	8	2.6
Other Program	0	0.0	1	0.4	1	0.3
Not sure but not suited for business education	5	10.0	24	9.1	29	9.3
Don't know	9	18.0	34	12.9	43	13.7
Never thought about suitability to program	10	20.0	41	15.6	51	16.3
Total	50	100.0	263	100.0	313	100.0

$\chi^2 = 27.065$ $D/F = 9$ $P = .001365$ $C = .2821$

responses when students were asked to indicate the program for which they thought they were most suited. A coefficient of contingency (C) value of .2821 was calculated which indicated a strong relationship.¹ One illustration of this relationship is shown in Table III where 49.8 per cent of the girls and only 22.0 per cent of the boys felt that they were most suited for business education.

Questionnaire Items 4 to 11 (pages 131 to 132, Appendix A) were designed to determine which programs were generally regarded by students as the best and poorest programs for boys and girls and which programs were generally regarded by students as leading to the best and poorest jobs for males and females. The results are given in Figures 1 to 8 on pages 64 to 71.

Boys (32 per cent) designated the technical-vocational program more than any other program as best for boys. Approximately 50 per cent of the girls designated the matriculation-technical program as best for boys. Chi square test of independence at less than the .05 level of

¹The contingency coefficient (C) may be employed as an approximation of the strength of a relationship of data in a contingency table. As a rule-of-thumb, a value of .20 or greater generally indicates a strong relationship. The significance of C, however, is tested by consulting a table to ascertain whether or not the value of chi square is significant. See: George A. Ferguson, Statistical Analysis in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1959), pp. 194-196.

significance showed a relationship between sex and program generally regarded by students as best for boys which means that sex had a significant effect on responses when students were asked to indicate which program was generally regarded by students as best for boys. A C value of .2277 indicated that the relationship was strong. Complete data are given in Figure 1 on page 64.

Fifty-four per cent of the boys and approximately fifty-eight per cent of the girls designated the general program as poorest for boys. Chi square test of independence at the .05 level of significance showed no relationship between sex and program generally regarded by students as poorest for boys which means that sex had no significant effect on responses when students were asked to indicate which program was generally regarded by students as poorest for boys. Complete data are given in Figure 2 on page 65.

Thirty-six per cent of the boys and approximately 52 per cent of the girls designated the business education program as best for girls. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and program generally regarded by students as best for girls which means that sex had a significant effect on responses when students were asked to indicate which program was generally regarded by students as best for girls. A C value of .3795 indicated that the relationship was strong. Complete data are given in Figure 3 on page 66.

Both boys and girls designated the general program more than any other program as poorest for girls. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and program generally regarded by students as poorest for girls which means that sex had a significant effect on responses when students were asked to indicate which program was generally regarded by students as poorest for girls. A C value of .2044 indicated that the relationship was strong. Complete data are given in Figure 4 on page 67.

Both boys and girls designated the matriculation program more than any other program as leading to the best jobs for males. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and program generally regarded by students as leading to the best jobs for males which means that sex had a significant effect on responses when students were asked to indicate which program was generally regarded by students as leading to the best jobs for males. A C value of .1832, however, indicated that the relationship was weak. Complete data are shown in Figure 5 on page 68.

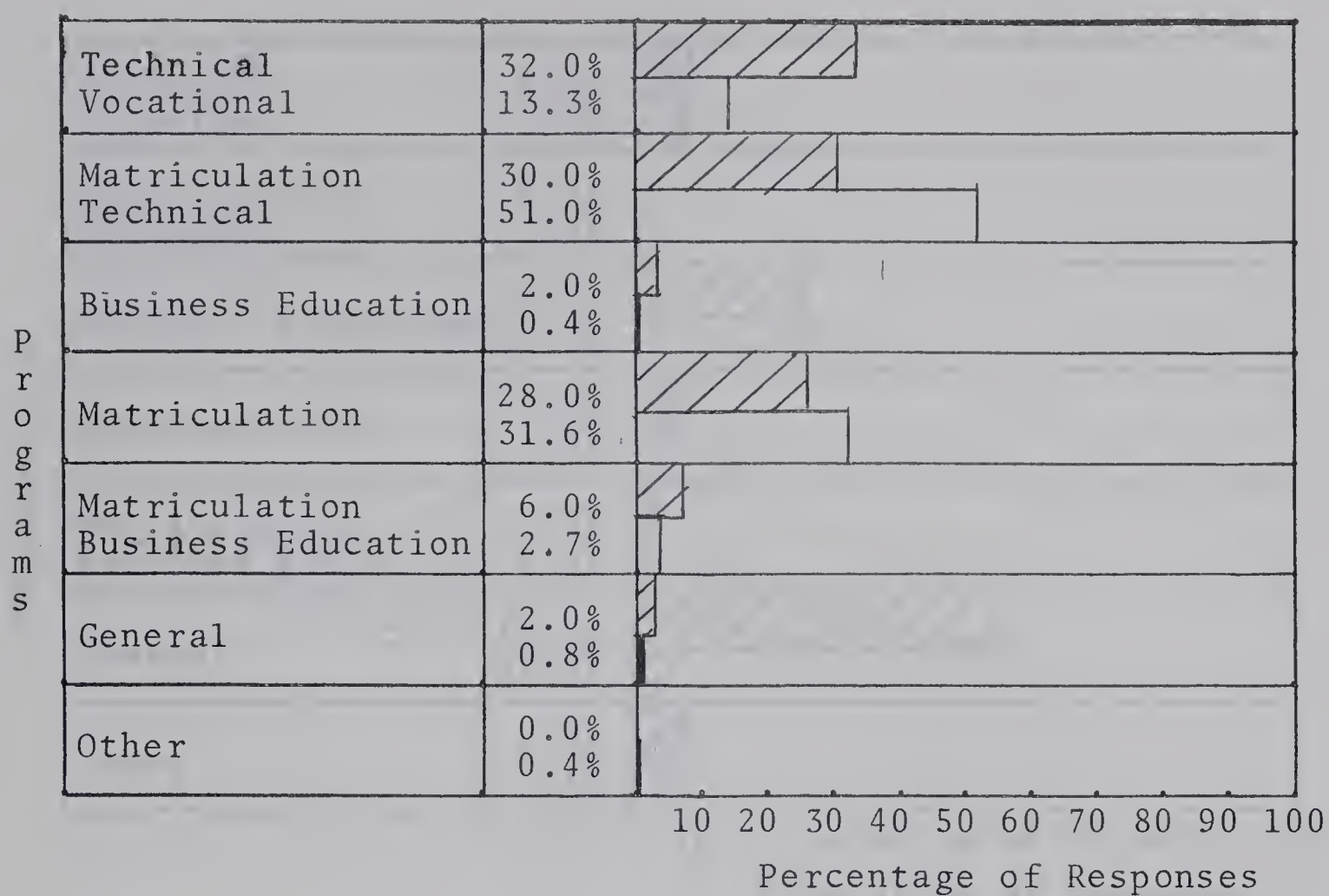
More than two-thirds of the boys and more than two-thirds of the girls designated the general program as leading to the poorest jobs for males. Chi square test of independence at the .05 level of significance showed no relationship between sex and program generally regarded by

students as leading to the poorest jobs for males. Complete data are shown in Figure 6 on page 69.

Boys designated the matriculation program more than any other program, and girls designated the business education program more than any other program, as leading to the best jobs for females. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and program generally regarded by students as leading to the best jobs for females. A C value of .1908, however, was short of the .20 needed to indicate a strong relationship. Complete data are shown in Figure 7 on page 70.

Forty-two per cent of the boys and approximately 55 per cent of the girls designated the general program as leading to the poorest jobs for females. Chi square test of independence at less than the .05 level of significance showed a relationship between sex and program generally regarded by students as leading to the poorest jobs for females. A C value of .2369 indicated that the relationship was strong. Complete data are shown in Figure 8 on page 71.

On the bases of the findings shown in Figures 1 to 8, it may be concluded that students generally regarded the business education program more than any other program as best for girls and as leading to the best jobs for females. It may also be concluded that students generally regarded the business education program more than any other program

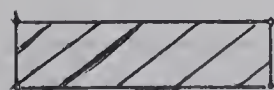


$$\chi^2 = 17.108$$

$$D/F = 6$$

$$P = .008893$$

$$C = .2277$$



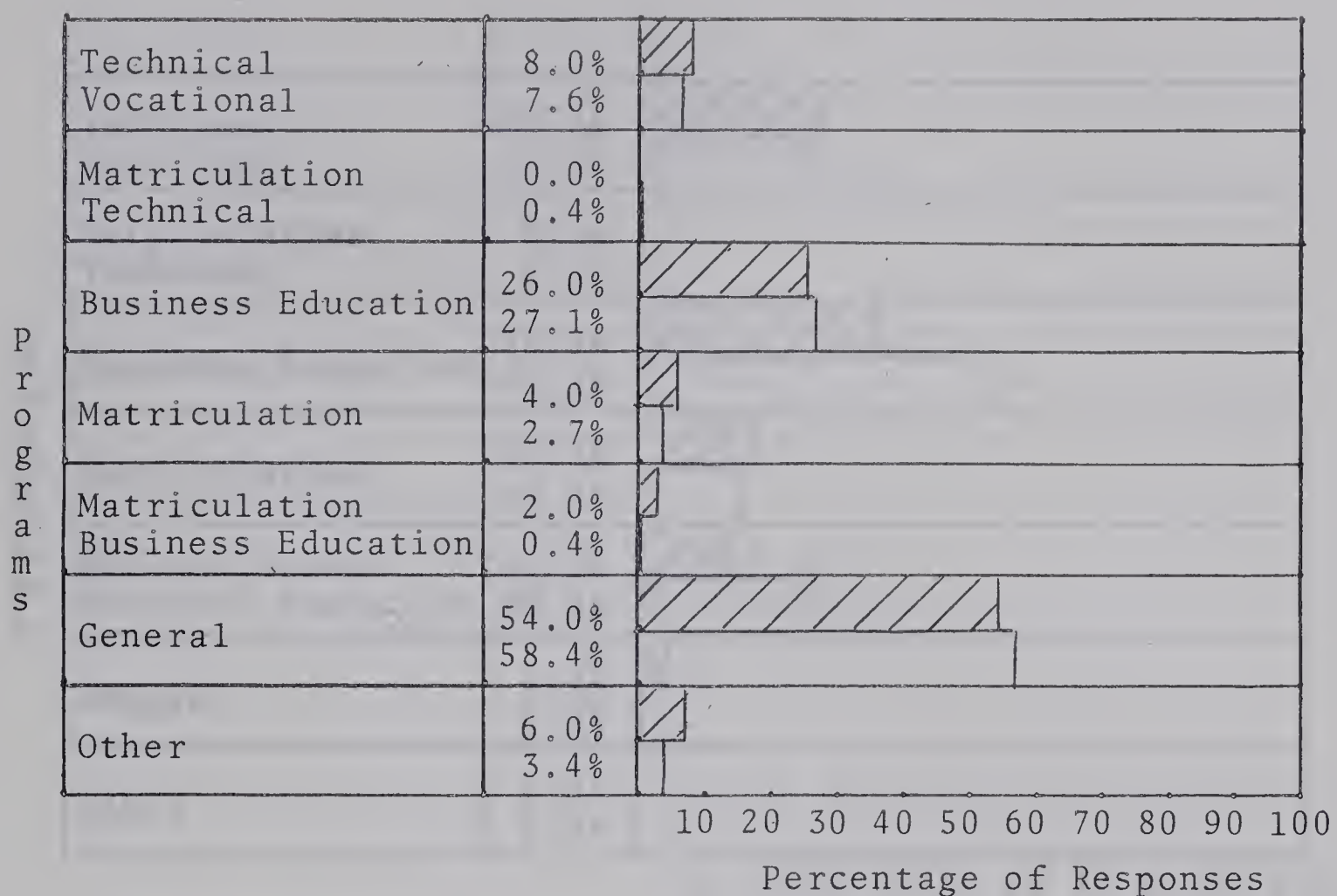
Boys (N=50)



Girls (N=263)

FIGURE 1

PROGRAM REGARDED BY STUDENTS
AS BEST FOR BOYS



$$\chi^2 = 3.048$$

$$D/F = 6$$

$$P = .802787$$

$$C = .0984$$



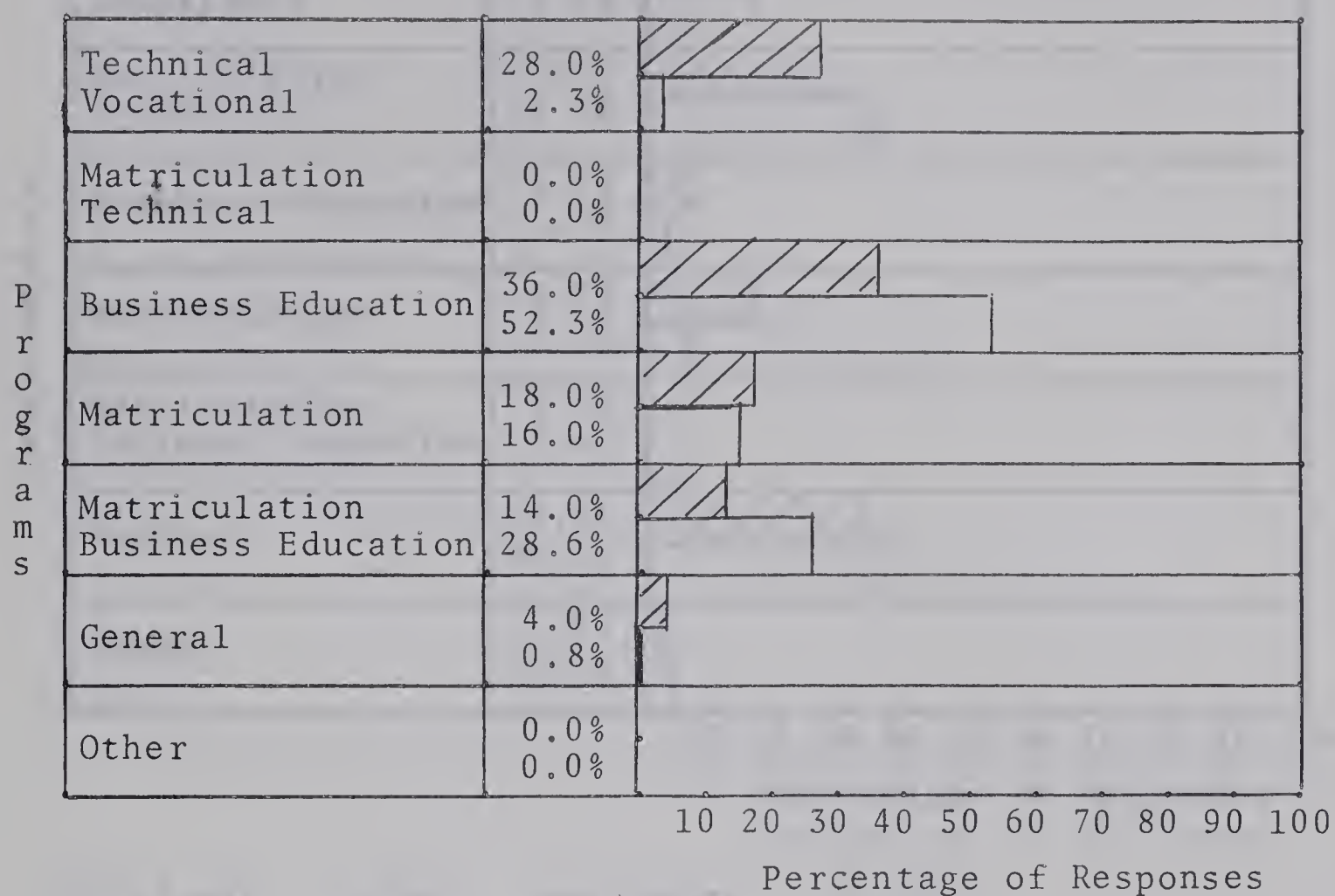
Boys (N=50)



Girls (N=262)

FIGURE 2

PROGRAM REGARDED BY STUDENTS
AS POOREST FOR BOYS



$$X^2 = 52.486$$

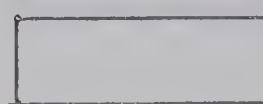
$$D/F = 4$$

$$P = .000000$$

$$C = .3795$$



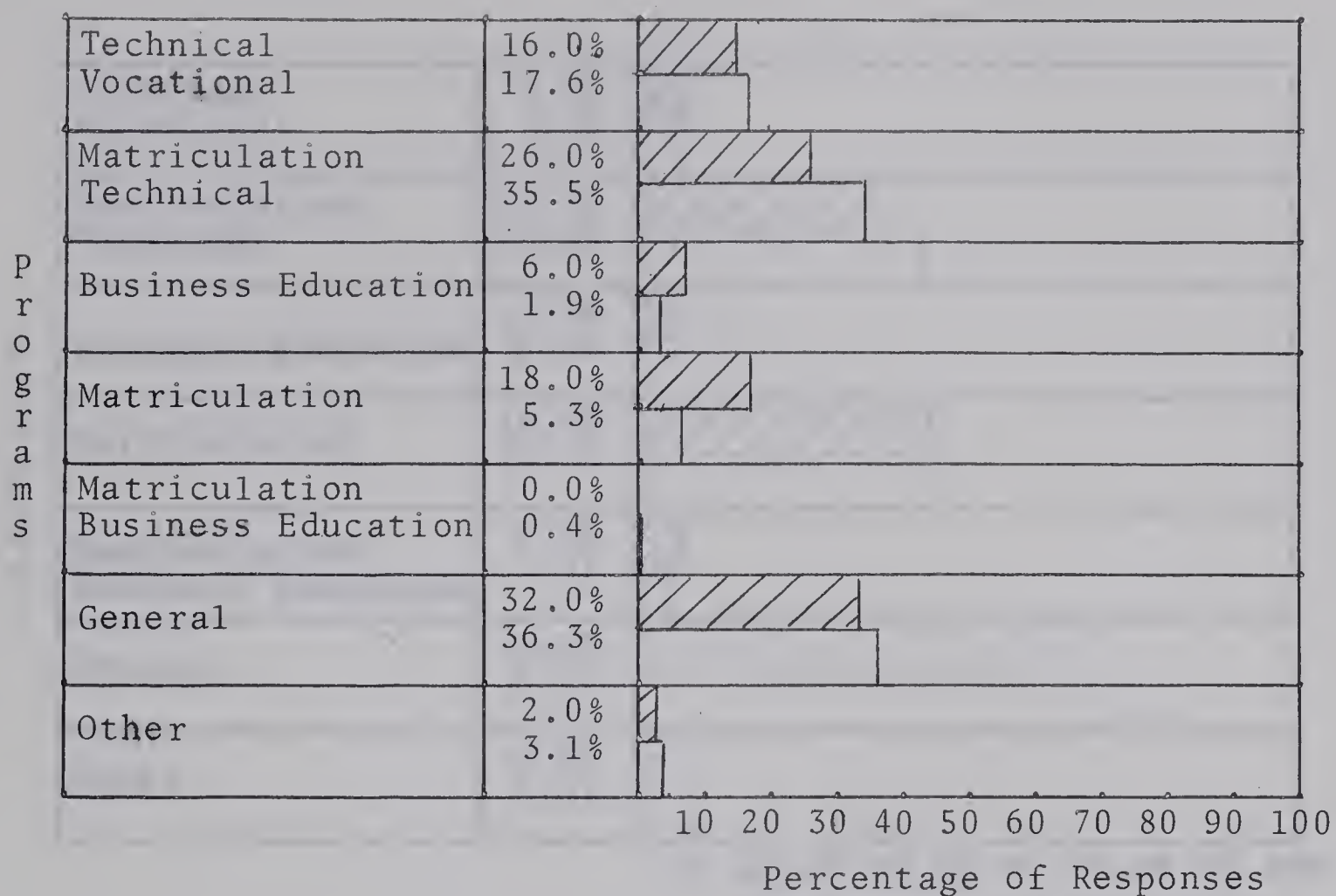
Boys (N=50)



Girls (N=262)

FIGURE 3

PROGRAM REGARDED BY STUDENTS
AS BEST FOR GIRLS

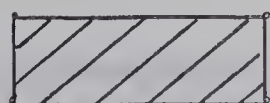


$$\chi^2 = 13.605$$

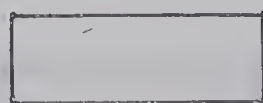
$$D/F = 6$$

$$P = .034376$$

$$C = .2044$$



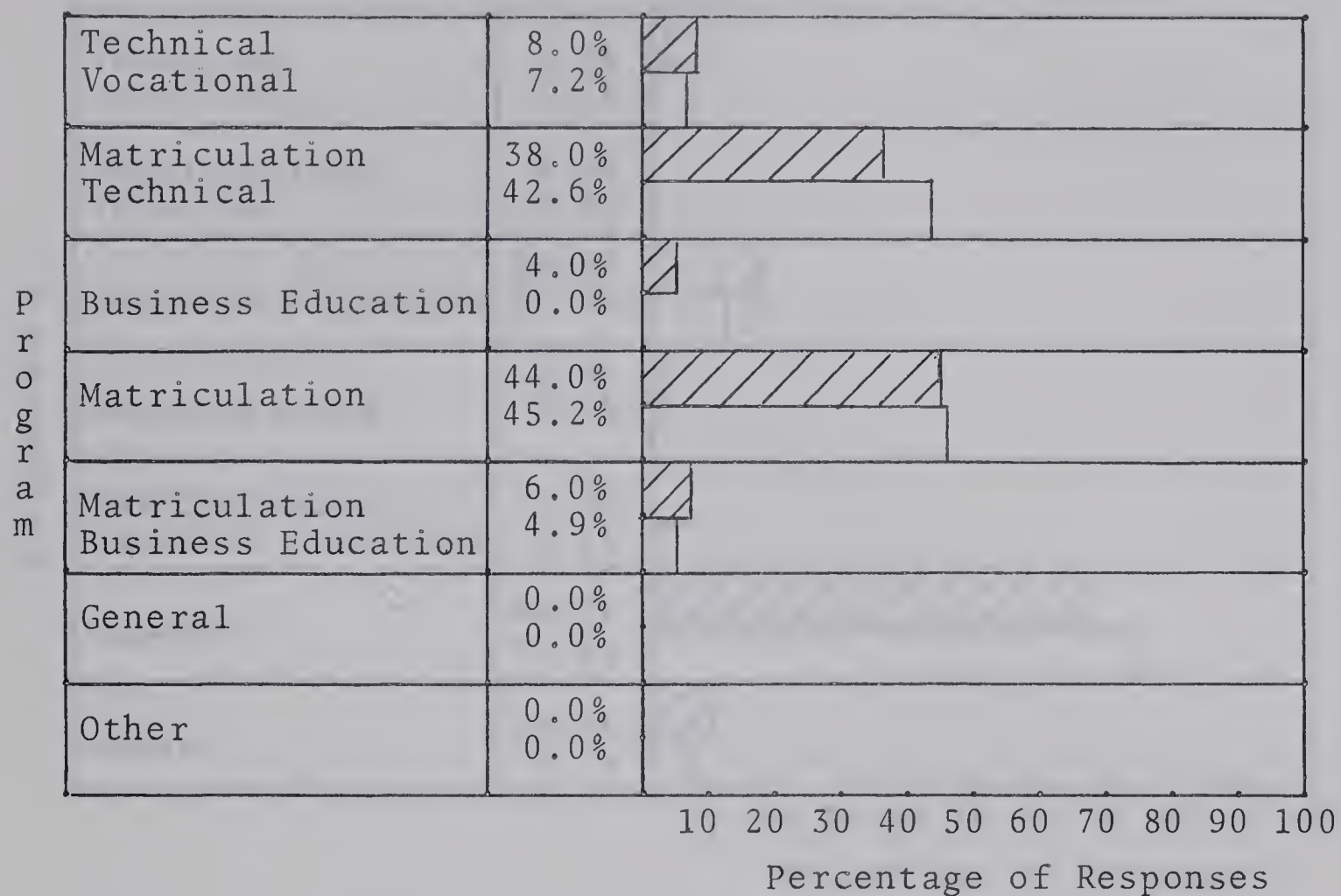
Boys (N=50)



Girls (N=262)

FIGURE 4

PROGRAM REGARDED BY STUDENTS
AS POOREST FOR GIRLS

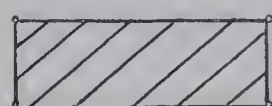


$$\chi^2 = 10.872$$

$$D/F = 4$$

$$P = .028043$$

$$C = .1832$$



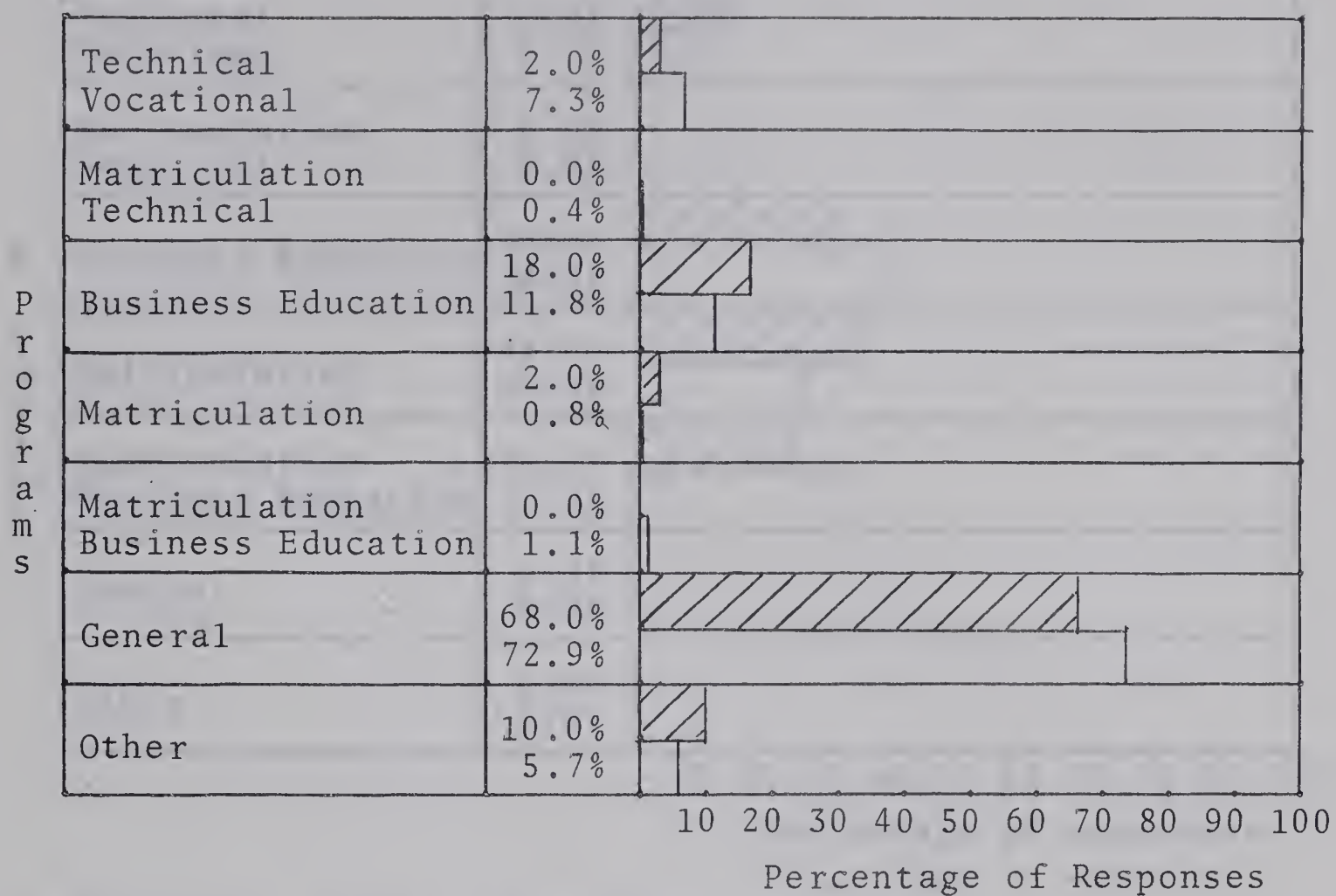
Boys (N=50)



Girls (N=263)

FIGURE 5

PROGRAM REGARDED BY STUDENTS AS LEADING
TO THE BEST JOBS FOR MALES



$$\chi^2 = 5.820 \quad D/F = 6 \quad P = .443596 \quad C = .1353$$

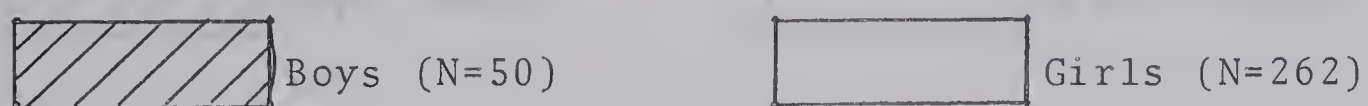
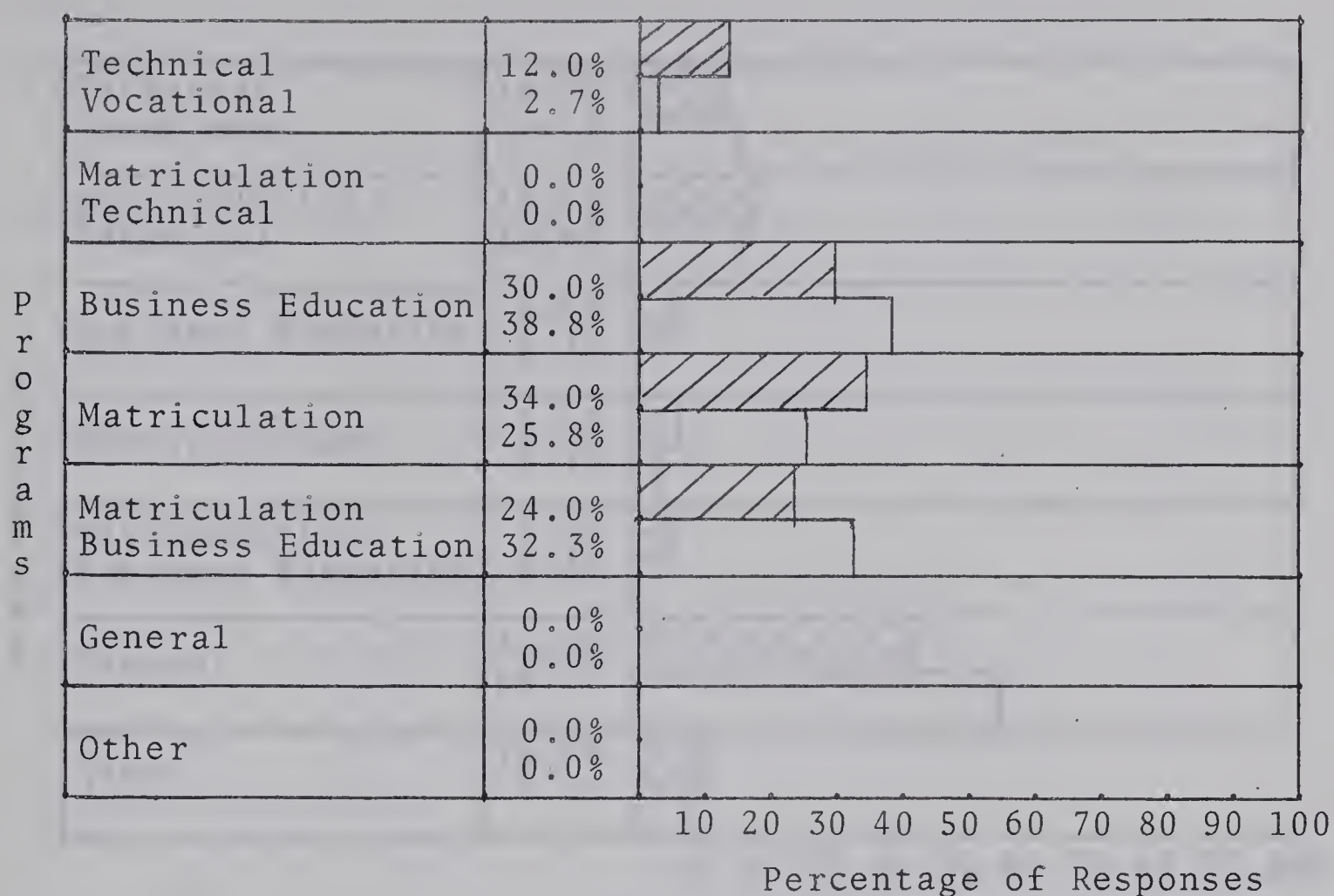


FIGURE 6

PROGRAM REGARDED BY STUDENTS AS LEADING
TO THE POOREST JOBS FOR MALES



$$\chi^2 = 11.716 \quad D/F = 4 \quad P = .019596 \quad C = .1908$$

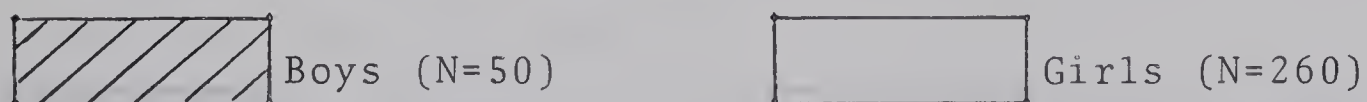
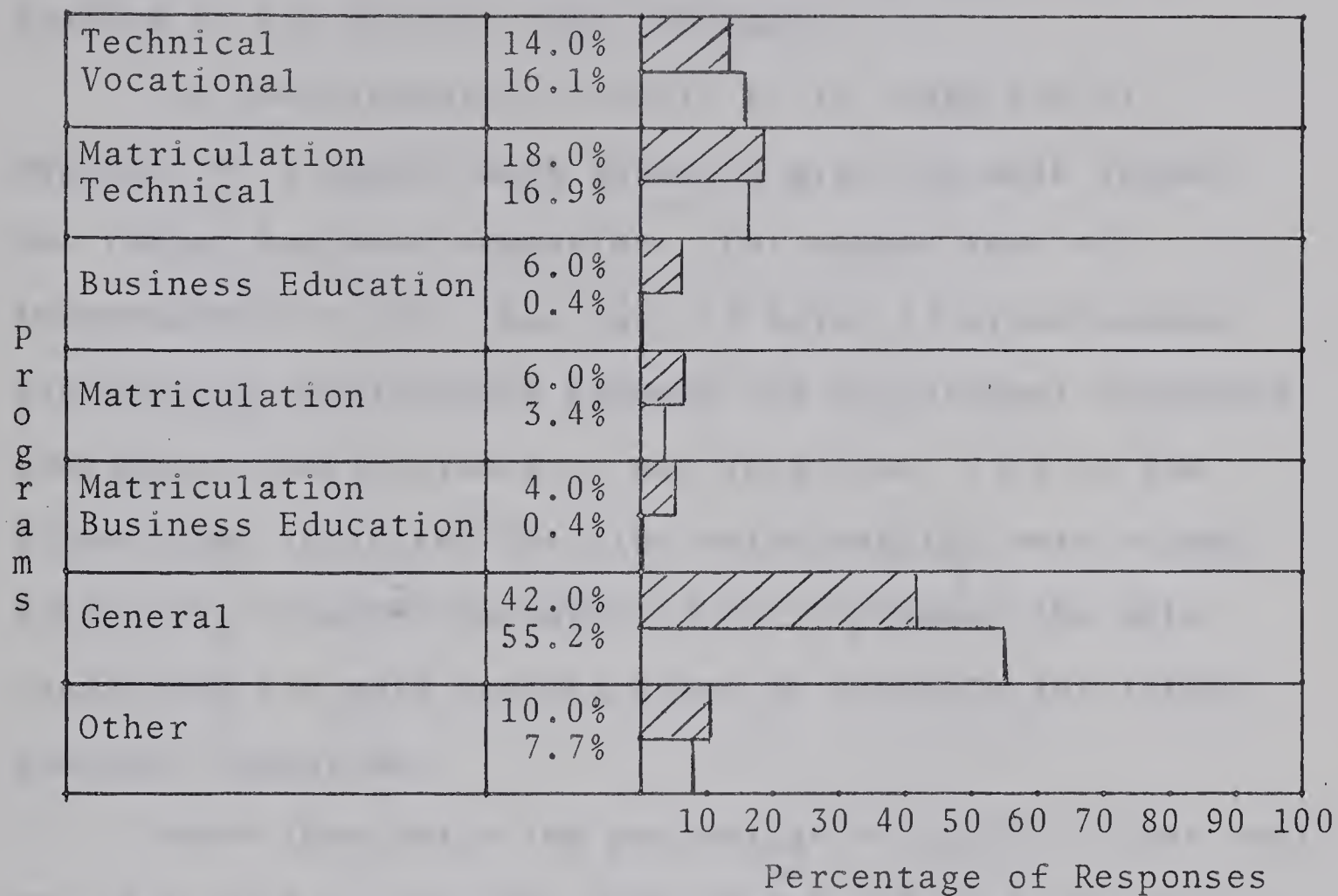


FIGURE 7

PROGRAM REGARDED BY STUDENTS AS LEADING
TO THE BEST JOBS FOR FEMALES



$\chi^2=18.498$ D/F=6 P=.005102 C=.2369



FIGURE 8

PROGRAM REGARDED BY STUDENTS AS LEADING
TO THE POOREST JOBS FOR FEMALES

except the general program as poorest for boys and as leading to the poorest jobs for males.

In Questionnaire Items 12 to 14 (page 132 of Appendix A) students were asked to give the main reason for taking business education. Chi square test of independence at less than the .05 level of significance indicated a relationship between sex and student responses. Contingency coefficients of not less than .2798 on the three items indicated that the relationships were strong. Tables IV, V and VI on pages 73 to 75 present the data concerning the main reasons given by students for taking business education.

More than twice the percentage of girls (61 per cent) than boys (28.6 per cent) indicated a liking for business education subjects as the main reason for taking business education (Table IV, page 73).

Table V on page 74 shows that 26.5 per cent of the boys and 23.7 per cent of the girls reported taking business education because they felt they could use what was learned in the program either in everyday life or in almost any career which may be considered personal use values of business education. On the other hand, 14.3 per cent of the boys and 54.3 per cent of the girls reported taking business education because it trains them for a career in business.

TABLE IV

REASONS FOR TAKING BUSINESS EDUCATION (I)

Reasons	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Did not like the subjects in the other programs	4	8.2	21	8.1	25	8.1
Liked the subjects in business education	14	28.6	158	61.0	172	55.8
Placed in business education by the school	26	53.1	51	19.7	77	25.0
Don't know or not sure	5	10.2	29	11.2	34	11.0
Total	49	100.1	259	100.0	308	99.9

$$X^2 = 26.152 \quad D/F = 3 \quad P = .000009 \quad C = .2798$$

TABLE V
REASONS FOR TAKING BUSINESS EDUCATION (II)

Reasons	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Many of the things learned can be used in everyday life	5	10.2	18	7.0	23	7.5
What is learned can be used in almost any career	8	16.3	43	16.7	51	16.6
Provides training for a career in business	7	14.3	140	54.3	147	47.9
Placed in business education by the school	26	53.1	51	19.8	77	25.1
Don't know or not sure	3	6.1	6	2.3	9	2.9
Total	49	100.0	258	100.1	307	100.0

$$X^2 = 34.544 \quad D/F = 4 \quad P = .000001 \quad C = .3180$$

TABLE VI
REASONS FOR TAKING BUSINESS EDUCATION (III)

Reasons	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Leads to further education	6	12.2	25	9.7	31	10.1
Enables students to get a job on leaving high school	13	26.5	173	67.1	186	60.6
Placed in business education by the school	27	55.1	51	19.8	78	25.4
Don't know or not sure	3	6.1	9	3.5	12	3.9
Total	49	99.9	258	100.1	307	100.0

$$\chi^2 = 32.394 \quad D/F = 3 \quad P = .000000 \quad C = .3089$$

More than two-thirds of the girls (67.1 per cent) and approximately one-quarter of the boys (26.5 per cent) chose business education because the program enables them to get a job as soon as they leave high school. Approximately 12 per cent of the boys and 9.7 per cent of the girls chose business education because the program leads to further education after high school (Table VI, page 75).

More than half of the boys (approximately 53 to 55 per cent) and almost one-fifth of the girls (approximately 19.8 per cent) felt that they were placed in business education by the school.

On the bases of these findings it may be concluded that most of the girls chose business education mainly because of its vocational orientation. It may be concluded also that over half of the boys (53 to 55 per cent) felt they had no choice and were placed in business education by the school.

Summary of findings related to Question 1. Over three quarters of the business education students surveyed had not been in another high school program. Most of those coming from other programs came from either the matriculation or the general programs. Students left their previous program because of low achievement or because they felt that it did not lead to good job opportunities. Approximately one-half of the girls and about one-fifth of the boys felt

that they were suited for business education, while approximately one-third of the students either did not know which program they were suited for or had not thought about their suitability to a high school program. Students generally regarded the business education program more than any other program as best for girls and as leading to the best jobs for females. Also, students generally regarded the business education program more than any other program except the general program as poorest for boys and as leading to the poorest jobs for males. Finally, approximately one-half of the boys and about one-fifth of the girls felt they were placed in business education by the school.

Question 2(a): What educational levels would business education students like to attain?

(b): What educational levels do business education students expect to attain?

Items 15, 16 and 17 of the Business Education Questionnaire are related to Question 2. Chi square tests of independence at the .05 level of significance indicated a relationship between sex and educational aspirations and between sex and educational expectations. C values exceeding .20 were calculated in both cases, which indicated that the relationships were strong. Since this means that boys and girls differed significantly in their educational aspirations and expectations, findings are reported separately for the sexes.

Tables XXIX and XXX on pages 153 and 154 of Appendix D show the complete data for the comparison by sex.

With reference to the educational aspirations and expectations of boys, Table VII shows that none of the boys reported they would like to just complete grade eleven. Two of the boys, however, reported that grade eleven was the highest level of education they expected to attain. Forty-six per cent of the boys indicated aspirations for a diploma from the Northern Alberta Institute of Technology (NAIT), of these, 60.9 per cent expected to attain a NAIT diploma. In total, 44.0 per cent of the boys expected to attain a diploma from NAIT.

Table VII also shows that seven (14 per cent) of the boys did not know what their educational aspirations or expectations were, or had "other" educational aspirations or expectations. If the data for these boys are excluded from Table VII, the results show that twenty-one (49.0 per cent) of the remaining 43 boys aspired to educational levels that were above their educational expectations. Also, twenty-one of the remaining 43 boys aspired to educational levels that coincided with their educational expectations and one of the 43 boys aspired to an educational level that was below his educational expectations.

With reference to the educational aspirations and expectations of girls, Table VIII on page 80 shows that 24.7 per cent of the girls reported they would like to attain a high

TABLE VII

BOYS' EDUCATIONAL ASPIRATIONS AND EXPECTATIONS

Educational Aspirations	Educational Expectations									
	Grade XI N %	HS Diploma N %	Senior Matric N %	NAIT Diploma N %	Bach. Degree N %	Grad. Degree N %	Don't know N %	Other N %	Total N %	
Grade XI										
HS Diploma		4 100.0							4 8.0	
Sr. Matric.	1 20.0	3 60.0		1 20.0					5 10.0	
NAIT Diploma	1 4.3	7 30.4		14 60.9			1 4.3		23 46.0	
Bach. Degree				6 66.7	2 22.2		1 11.1		9 18.0	
Grad. Degree		1 25.0		1 25.0	1 25.0	1 25.0			4 8.0	
Don't know		1 100.0							1 2.0	
Other		2 50.0						2 50.0	4 8.0	
Total	2 4.0	18 36.0		22 44.0	3 6.0	1 2.0	2 4.0	2 4.0	50 100.0	

Percentages by rows. $\chi^2 = 66.786$ D/F = 36 P = .001366 C = .7562

TABLE VIII

GIRLS' EDUCATIONAL ASPIRATIONS AND EXPECTATIONS

Educational Aspirations	Educational Expectations									
	Grade XI N %	HS Diploma N %	Senior Matric N %	NAIT Diploma N %	Bach. Degree N %	Grad. Degree N %	Don't Know N %	Other N %	Total N %	
Grade XI		1 100.0							1 0.4	
HS Diploma	5 7.7	57 87.7						3 4.6	65 24.7	
Sr. Matric.		10 83.3	1 8.3	1 8.3					12 4.6	
NAIT Diploma		41 56.9		28 38.9				3 4.2	72 27.4	
Bach. Degree	1 2.2	28 60.9		13 28.3			2 4.3	2 4.3	46 17.5	
Grad. Degree		18 60.0		9 30.0	1 3.3			2 6.7	30 11.4	
Don't know		3 75.0		1 25.0					4 1.5	
Other	2 6.1	11 33.3		5 15.2			3 9.1	12 36.4	33 12.5	
Total	8 3.0	169 64.3	1 0.4	57 21.7	1 0.4		5 1.9	22 8.4	263 100.0	

Percentages by rows. $\chi^2 = 127.762$ D/F = 42 P = .000000 C = .5718

school diploma and a further 27.4 per cent reported they would like to attain a diploma from NAIT. Although approximately 30 per cent of the girls expressed aspirations for either a bachelor's degree or a graduate degree from university, most (64.3 per cent) expected to attain only a high school diploma. A further 21.7 per cent expected to attain a diploma from NAIT. One girl indicated she would like to just complete grade eleven.

Table VIII also shows that forty-nine (18.6 per cent) of the girls did not know what their educational aspirations or expectations were, or had "other" educational aspirations or expectations. If the data for these girls are excluded from Table VIII, the results show that one hundred and twenty-six (58.8 per cent) of the remaining 214 girls aspired to educational levels that were above their educational expectations. Eighty-six (40.2 per cent) of the remaining 214 girls aspired to educational levels that coincided with their educational expectations, and two of the 214 girls aspired to educational levels that were below their educational expectations.

On the bases of these findings, when data are excluded for the 14 per cent of the boys and 18.6 per cent of the girls who did not know what their educational aspirations or expectations were or who had other educational aspirations or expectations, it may be concluded that, in general, the educational aspirations of the remaining

students tended to coincide with or exceed their educational expectations. Also, those expecting to attain a high school or NAIT diploma expressed what appeared to be realizable educational expectations because the business education program leads to a high school diploma which should permit students to enter NAIT in most technologies.

Some of the students indicated "other" levels of educational aspiration and expectation. Prominent among these, for girls, were business college training, other college training, and training in drama. Details of these responses are given in Tables XIX and XX on pages 141 and 142 of Appendix C.

In some cases barriers were perceived by students as preventing them from attaining their educational aspirations. Almost 25 per cent of the students indicated lack of ability as the reason for non-attainment of their educational aspirations. Table IX shows the complete results. The meaning of chi square is not interpreted in this case because the data includes responses of students who expected to attain their educational aspirations. About one-fifth of the students showed other reasons which they felt were preventing them from attaining their educational aspirations. A list of these reasons is given in Table XXI on page 143 of Appendix C. On the basis of these findings it may be concluded that felt lack of ability is a major barrier perceived by students as preventing them from attaining

TABLE IX
STUDENTS' REASONS FOR NON-ATTAINMENT OF EDUCATIONAL ASPIRATIONS

Reasons	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Lack of ability	6	13.6	62	27.0	68	24.8
Lack of money	2	4.5	27	11.7	29	10.6
Parents not in favour of further education for student	0	0.0	1	0.4	1	0.4
Other	13	29.5	38	16.5	51	18.6
Students expecting to attain educational aspirations	23	52.3	102	44.3	125	45.6
Total	44	99.9	230	99.9	274	100.0

$\chi^2 = 8.512$ $D/F = 4$ $P = .074528$ $C = .1736$

their educational aspirations.

Question 3 (a): What occupational levels would business education students like to attain?

(b): What occupational levels do business education students expect to attain?

Items 18 and 19 of the Business Education Questionnaire are related to Question 3. Chi square tests of independence at the .05 level of significance indicated a relationship between sex and occupational aspirations and between sex and occupational expectations. C values exceeding .20 were calculated in both cases, which indicated that the relationships were strong. Since this means that boys and girls differed significantly in their occupational aspirations and expectations, findings are reported separately for the sexes. Tables XLVI and XLVII on pages 170 and 171 of Appendix D show the complete data for the comparison by sex.

With reference to the career preference of boys, Table X shows that 48.0 per cent had either not thought about it, did not know, were not sure, or had no particular career in mind. Concerning the career they expected to have, Table X also shows that 62.0 per cent of the boys had either not thought about it, did not know, or were not sure.

Of the twelve per cent of the boys who indicated they

TABLE X
BOYS' OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS

Occupational Aspirations	Occupational Expectations																
	Prof N	Prof %	Semi- Prof N	Semi- Prof %	Mgrl Large N	Mgrl Small N	Cler Sales N	Skilled N	Semi- Skilled N	Un- Skilled N	Farm N	Not Thought N	Don't Know N	Not Sure N	Total N	Total %	
Professional	3	50.0					1	16.7				1	16.7		1	6	12.0
Semi-professional			4	50.0			1	12.5		1	12.5				2	8	16.0
Managerial, large																	
Managerial, small																	
Clerical and sales							1	20.0							4	5	10.0
Skilled								1	25.0				2	50.0		4	8.0
Semi-skilled						1	50.0								1	2	4.0
Unskilled																	
Farm											1	100.0				1	2.0
Have not thought about a career							1	20.0			1	20.0	2	40.0	1	5	10.0
Don't Know										1	25.0		3	75.0		4	8.0
Not Sure									1	7.7		1	7.7	4	7	13	26.0
No particular career													1	50.0	1	2	4.0
Total	3	6.0	4	8.0		1	2.0	4	8.0	1	2.0	2	4.0	10	17	50	100.0

Percentages by rows. $\chi^2 = 157.630$ D/F = 90 P = .000014 C = .8713

would like to have a professional occupation, only 50 per cent expected to attain this level of occupation. Of the sixteen per cent of the boys who said they would like to have a semi-professional occupation, only 50 per cent expected to attain this level of occupation. Five of the 50 boys sampled reported they would like to attain a clerical or sales position. Only one expected to reach this occupational level while the remaining four were not sure concerning the type of career they expected to have.

Table X also shows that thirty-five (70 per cent) of the boys had not thought about a career, did not know, were not sure, or had no particular type of career in mind. If the data for these boys are excluded from Table X, the results show that four (26.6 per cent) of the remaining 15 boys aspired to occupational levels that were above their occupational expectations. Ten (66.6 per cent) of the remaining 15 boys aspired to occupational levels that coincided with their occupational expectations while one of the 15 boys aspired to an occupational level that was below his occupational expectations.

With reference to the career preference of girls, Table XI shows that 26.2 per cent had either not thought about it, did not know, were not sure, or had no particular type of career in mind. Concerning the career they expected to have, Table XI also shows that 26.9 per cent of the girls had either not thought about it, did not know, or were not

TABLE XI
GIRLS' OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS

Occupational Aspirations	Occupational Expectations																	
	Prof N	Prof %	Semi- Prof N	Semi- Prof %	Mgrl Large N	Mgrl Small N	Cler Sales N	Skilled N	Semi- Skilled N	Un- Skilled N	Farm N	Not Thought N	Don't Know N	Not Sure N	Total N	Total %		
Professional Semi- professional Managerial, large Managerial, small	2	7.4	1	3.7			19	70.4	1	3.7			1	3.7	3	11.1	27	10.3
			14	29.2			24	50.0	1	2.1	1	2.1	2	4.2	6	12.5	48	18.3
						1	50.0								1	50.0	2	0.8
							86	85.1	1	1.0			3	3.0	5	5.0	101	38.4
							2	16.7	10	83.3							12	4.6
Unskilled Farm Have not thought about a career Don't Know Not Sure No particular career							3	75.0						1	25.0	4	1.5	
							1	16.7				4	66.7		1	16.7	6	2.3
							2	50.0					2	50.0		4	1.5	
			3	5.6			18	33.3				1	1.9	8	14.8	24	44.4	54
							2	40.0					1	20.0	2	40.0	5	1.9
Total	2	0.8	18	6.8		1	0.4	157	59.7	13	4.9		8	3.0	43	16.3	263	100.0

Percentage by rows. $\chi^2 = 521.614$ D/F = 72 P = .000000 C = .8154

sure.

Of the 10.3 per cent of the girls who indicated they would like a professional occupation, only 7.4 per cent expected to reach this occupational level. Of the 38.4 per cent of the girls who indicated they would like to attain a clerical or sales occupation, 85.1 per cent expected to reach this occupational level. About 60 per cent of the girls included in the study expected to attain a clerical or sales occupational level.

Table XI also shows that ninety-seven (36.9 per cent) of the girls had not thought about a career, did not know, were not sure, or had no particular type of career in mind. If the data for these girls are excluded from Table XI, the results show that forty-eight (28.9 per cent) of the remaining 166 girls aspired to occupational levels that were above their occupational expectations. One hundred and thirteen (68.1 per cent) of the remaining 166 girls aspired to occupational levels that coincided with their occupational expectations, while five of the 166 girls aspired to occupational levels that were below their occupational expectations.

On the bases of these findings, when data are excluded for the 70 per cent of the boys and 36.9 per cent of the girls who appeared uncertain about their future career, it may be concluded that, in general, the occupational aspirations of the remaining students tended to coincide with

or exceed their occupational expectations. Caution is to be observed as this conclusion applies to only 30 per cent of the boys and 63.1 per cent of the girls. It may also be concluded that many of the boys appeared to be uncertain about their career while the fact that approximately 60 per cent of the girls expected to enter a clerical or sales occupation supports the conclusion reached on page 76 that most of the girls appeared to choose business education because of its vocational orientation.

If students were undecided among occupations in their occupational aspirations and expectations, they were asked to indicate the titles of all such occupations. Lists of all occupations aspired to and expected by students appear in Tables XXII and XXIII on pages 144 and 145 of Appendix C.

Question 4: Who or what, according to students, has influenced them most in entering the business education program and in planning a career?

Items 24 to 28 of the Business Education Questionnaire are related to Question 4. About 40 per cent of the students surveyed indicated that no individual or group had influenced them most to enter business education. Chi square test of independence showed a relationship at less than the .05 level of significance between sex and the

influence of parents, school authorities, and peers on students' entrance into the business education program. A C value of .2844 indicated that the relationship was strong. One illustration of the difference in responses between the sexes is shown in Table XII where boys (24 per cent) indicated that a guidance counselor more than any other single factor had influenced them most. On the other hand, almost 45 per cent of the girls indicated that no single factor had been influential in their selection of business education. Fifty-two students gave "other" factors as influencing them most to enter business education. A list of these factors is given in Table XXIV on page 146 of Appendix C.

On the bases of these results it may be concluded that many of the girls apparently felt they had independently chosen their program. Also, it appears that many of the boys felt that a guidance counselor had influenced them most to enter business education.

Almost half of the students indicated that no single factor was most influential in planning their career. Chi square test of independence showed a relationship at less than the .05 level of significance between sex and the influence of parents, school authorities, and peers on students' career planning. A C value of .2432 indicated that the relationship was strong. One illustration of the difference in responses between the sexes is shown in Table XIII on page 93 where

TABLE XII

FACTORS INFLUENCING ENTRANCE OF STUDENTS INTO BUSINESS EDUCATION

Factors	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Parents	1	2.0	15	5.7	16	5.1
Other relative or adults	4	8.0	24	9.1	28	8.9
A teacher	1	2.0	6	2.3	7	2.2
The principal or assistant principal	0	0.0	4	1.5	4	1.3
A guidance counselor	12	24.0	32	12.2	44	14.1
Peers	2	4.0	13	4.9	15	4.8
Television, newspaper, radio	0	0.0	2	0.8	2	0.6
No one	9	18.0	118	44.9	127	40.6
Don't know or can't remember	3	6.0	15	5.7	18	5.8
Other	18	36.0	34	12.9	52	16.6
Total	50	100.0	263	100.0	313	100.0

$$\chi^2 = 27.547 \quad D/F = 9 \quad P = .001135 \quad C = .2844$$

32 per cent of the boys but almost 52 per cent of the girls reported that no single factor had influenced them most in planning a career. Seventeen students gave "other" factors as influencing them most in planning their career. A list of these factors is given in Table XXV on page 147 of Appendix C.

On the bases of these results it may be concluded that many of the students apparently felt independent in planning their career.

As suggested by Ginzberg, parents may exercise a negative influence on their child's choice of occupation.² Questionnaire Item 26 (page 135, Appendix A) asked students if their parents advised them on occupations to avoid. About eight per cent of the students indicated that their parents often advised them in this regard. A further 46.2 per cent reported that their parents sometimes advised them while 17.0 per cent said that their parents never advised them concerning occupations to avoid. About 28 per cent of the students reported that their parents did not advise them on their choice of occupation. No significant relationship was found between sex and whether parents advised students on occupations to avoid. Complete data are given in Table XXVI on page 148 of Appendix C.

²Eli Ginzberg, et al., Occupational Choice (New York: Columbia University Press, 1951), p. 234.

TABLE XIII
FACTORS INFLUENCING CAREER PLANS OF BUSINESS EDUCATION STUDENTS

Factors	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Parents	3	6.0	25	9.5	28	8.9
Other relatives or adults	4	8.0	15	5.7	19	6.1
A teacher	1	2.0	11	4.2	12	3.8
The principal or assistant principal	0	0.0	1	0.4	1	0.3
A guidance counselor	8	16.0	19	7.2	27	8.6
Peers	1	2.0	12	4.6	13	4.2
Television, newspaper, radio	2	4.0	1	0.4	3	1.0
No one	16	32.0	136	51.7	152	48.6
Don't know or can't remember	2	4.0	7	2.7	9	2.9
No occupation planned as yet	9	18.0	23	8.7	32	10.2
Other	4	8.0	13	4.9	17	5.4
Total	50	100.0	263	100.0	313	100.0

$$X^2 = 19.678 \quad D/F = 10 \quad P = .032446 \quad C = .2432$$

Related to the influence of school authorities on the career plans of youth is the amount of occupational information disseminated by the school. About 87 per cent of the students said that occupational information was available in the school, 1.9 per cent said it was not, and 10.7 per cent indicated that they did not know if occupational information was available in the school. No significant relationship was found between sex and student knowledge of the availability of school materials on occupations. Complete data are shown in Table XXVII on page 149 of Appendix C.

Table XXVIII on page 150 of Appendix C shows that more than half of the students indicated that they had never used school materials on occupations. Also, chi square test of independence showed a relationship at less than the .05 level of significance between sex and the number of times students reported using this information. A C value of .2022 indicated that the relationship was strong. One illustration of the difference between the responses of the sexes is shown in Table XXVIII where only 13.9 per cent of the girls but almost twice the percentage of boys (26 per cent) reported using school materials on occupations three or more times.

On the basis of these findings it may be concluded that although most of the students were apparently aware that occupational information was available in the schools,

less than half appeared to make use of it. Also, boys appeared to make more use of this information than did girls.

Question 5: Do business education students expect to re-train on the job?

Items 20 to 23 and Item 29 of the Business Education Questionnaire are related to Question 5. A student may make short-term occupational plans if he expects to re-train on the job or if his career plans are not certain. In the case of girls, prospects of marriage may shorten occupational plans. In this study, an attempt was made to determine students' expectations for re-training on the job, their certainty of a career, their expectations of working in business, and girls' expectations for full-time work.

It was found that about 36 per cent of the students expected to re-train for a new type of work while 24.4 per cent expected to re-train for the same type of work. No significant relationship was found between sex and expectations for re-training. Complete data are given in Tables XIV and XV on pages 96 and 97. On the basis of these findings it may be concluded that the students expected to re-train for a new type of work more than they expected to re-train for the same type of work.

When students were asked about their certainty of a career, chi square test of independence at less than the .05

TABLE XIV

STUDENTS' EXPECTATIONS TO RE-TRAIN FOR A NEW TYPE OF WORK

Expectations	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
To re-train for a new type of work	19	38.0	94	35.7	113	36.1
Not to re-train for a new type of work	11	22.0	83	31.6	94	30.0
Don't know	20	40.0	86	32.7	106	33.9
Total	50	100.0	263	100.0	313	100.0

$$\chi^2 = 1.999 \quad D/F = 2 \quad P = .368104 \quad C = .0797$$

TABLE XV
STUDENTS' EXPECTATIONS TO RE-TRAIN FOR THE SAME TYPE OF WORK

Expectations	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
To re-train for the same type of work	8	16.0	67	26.0	75	24.4
Not to re-train for the same type of work	22	44.0	104	40.3	126	40.9
Don't know	20	40.0	87	33.7	107	34.7
Total	50	100.0	258	100.0	308	100.0

$\chi^2 = 2.324$ $D/F = 2$ $P = .312847$ $C = .0865$

level of significance indicated a relationship between sex and student responses. A C value of .2289 indicated that the relationship was strong. Two illustrations of the relationship between sex and student responses are shown in Table XVI on page 99 where only 10 per cent of the boys but almost 25 per cent of the girls felt very certain of a career and where 16 per cent of the boys and only about 8 per cent of the girls were not certain of a career. A further indication that girls appeared more certain than did boys about their career plans was found when students were asked if they expected to work in business. Chi square test of independence at less than the .05 level of significance indicated a relationship between sex and student responses. A C value of .2908 indicated that the relationship was strong. One illustration of the relationship between sex and student responses is shown in Table XVII on page 100 where 42 per cent of the boys and only 16.5 per cent of the girls did not know or were undecided about working in business. When girls were asked about their expectations for full-time work, 48.7 per cent indicated that they expected to work both before and after marriage. Table XVIII on page 101 gives the complete results.

On the bases of these findings it may be concluded that more of the girls than the boys appeared certain of a career. It also appeared that the possibility of marriage

TABLE XVI

CERTAINTY OF CAREER PLANS OF BUSINESS EDUCATION STUDENTS

Degrees of Certainty	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Very sure	5	10.0	65	24.8	70	22.4
Fairly sure	17	34.0	110	42.0	127	40.7
Not too sure	16	32.0	62	23.7	78	25.0
Not sure at all	8	16.0	22	8.4	30	9.6
Had not thought about a career	4	8.0	3	1.1	7	2.2
Total	50	100.0	262	100.0	312	99.9

$$\chi^2 = 17.247 \quad D/F = 4 \quad P = .001731 \quad C = .2289$$

TABLE XVII
STUDENTS' EXPECTATIONS TO WORK IN A BUSINESS OCCUPATION

Expectations	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
To work in a business occupation	16	32.0	186	71.3	202	65.0
Not to work in a business occupation	13	26.0	32	12.3	45	14.5
Don't know or undecided	21	42.0	43	16.5	64	20.6
Total	50	100.0	261	100.1	311	100.1

$\chi^2 = 28.719$ $D/F = 2$ $P = .000001$ $C = .2908$

TABLE XVIII

GIRLS' EXPECTATIONS FOR FULL-TIME WORK

Expectations	N	%
Only before marriage	78	29.9
Only after marriage	2	0.8
Both before and after marriage	127	48.7
Only after children are grown	1	0.4
Had not thought about it	52	19.9
Not expecting to work	1	0.4
Total	261	100.1

was not affecting the expectations for full-time work of almost one-half of the girls.

ANALYSIS AND FINDINGS RELATED TO HYPOTHESES

ONE TO FIVE

Each hypothesis was tested using computer program CROS-4 and the University of Alberta IBM 360/65 data processing system. Chi square test of independence was applied in testing each hypothesis, and a coefficient of contingency (C) was calculated in each case. The hypotheses were rejected at the .05 level of significance. Data related to the hypotheses are found in Appendix D, pages 152 to 186. Caution is advised in interpreting the data

in tables where a zero value appears in many cells thereby resulting in very small column and row totals.

Hypothesis 1(a): There is no relationship between the educational aspirations and the educational expectations of business education students.

Educational aspirations were compared with educational expectations for the sample of students. Table XXXI on page 155 of Appendix D gives the results of this comparison. Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. A C value of .5811 was calculated. On the basis of the chi square finding, Hypothesis 1(a) was rejected, and it may be concluded that the educational aspirations of the business education students in the sample were related to their educational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Hypothesis 1(b): There is no relationship between the occupational aspirations and the occupational expectations of business education students.

Occupational aspirations were compared with occupational expectations for the sample of students. Table XLVIII on page 172 of Appendix D gives the results of this comparison. Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis.

A C value of .8265 was calculated. On the basis of the chi square finding, Hypothesis 1(b) was rejected, and it may be concluded that the occupational aspirations of the business education students in the sample were related to their occupational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Hypothesis 2(a): There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex.

Educational aspirations of boys were compared with educational expectations of boys. Table XXXII on page 156 of Appendix D gives the results of this comparison. Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. A C value of .7562 was calculated. On the basis of the chi square finding, Hypothesis 2(a) was rejected for boys, and it may be concluded that the educational aspirations of the boys in the sample were related to their educational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Educational aspirations of girls were compared with educational expectations of girls. Table XXXIII on page 157 of Appendix D gives the results of this comparison.

Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. A C value of .5718 was calculated. On the basis of the chi square finding, Hypothesis 2(a) was rejected for girls, and it may be concluded that the educational aspirations of the girls in the sample were related to their educational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Hypothesis 2(b): There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex.

Occupational aspirations of boys were compared with occupational expectations of boys. Table XLIX on page 173 of Appendix D gives the results of this comparison. Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. A C value of .8713 was calculated. On the basis of the chi square finding, Hypothesis 2(b) was rejected for boys, and it may be concluded that the occupational aspirations of the boys in the sample were related to their occupational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Occupational aspirations of girls were compared with occupational expectations of girls. Table L on page 174 of

Appendix D gives the results of this comparison. Chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. A C value of .8154 was calculated. On the basis of the chi square finding, Hypothesis 2(b) was rejected for girls, and it may be concluded that the occupational aspirations of the girls in the sample were related to their occupational expectations. On the basis of the high C value, it may also be concluded that the relationship was strong.

Hypothesis 3(a): There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and mental ability level.

Educational aspirations of high mental ability boys were compared with educational expectations of high mental ability boys. Also, educational aspirations of low mental ability boys were compared with educational expectations of low mental ability boys. In the case of the high mental ability boys, chi square test of independence showed a probability exceeding the .05 level of accepting the null hypothesis. Table XXXIV on page 158 of Appendix D gives the results of the analysis. In the case of the low mental ability boys, chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. Table XXXV on page 159 of Appendix D gives the results of the

analysis. No interpretation of these results has been made because there were only 23 boys of high mental ability level and 27 of low mental ability level. These numbers were considered insufficient for drawing valid conclusions.

Educational aspirations of high mental ability girls were compared with educational expectations of high mental ability girls. Also, educational aspirations of low mental ability girls were compared with educational expectations of low mental ability girls. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .57 were calculated. Tables XXXVI and XXXVII on pages 160 and 161 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 3(a) was rejected for girls of high mental ability level and for girls of low mental ability level, and it may be concluded that the educational aspirations of girls in the sample were related to their educational expectations, when these girls were categorized by mental ability level. On the bases of the high C values, it may also be concluded that the relationships were strong.

Hypothesis 3(b): There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex and mental ability level.

Occupational aspirations of high mental ability boys were compared with occupational expectations of high mental ability boys. Also, occupational aspirations of low mental ability boys were compared with occupational expectations of low mental ability boys. Tables LI and LII on pages 175 and 176 of Appendix D give the results of these comparisons. In both cases chi square test of independence showed a probability of greater than .05 of accepting the null hypothesis. No interpretation of these results has been made because there were only 23 boys of high mental ability level and 27 boys of low mental ability level. These numbers were considered insufficient for drawing valid conclusions.

Occupational aspirations of high mental ability girls were compared with occupational expectations of high mental ability girls. Also, occupational aspirations of low mental ability girls were compared with occupational expectations of low mental ability girls. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .78 were calculated. Tables LIII and LIV on pages 177 and 178 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 3(b) was rejected for girls of high mental ability level and for girls of low mental ability level, and it may be concluded that the occupational aspirations of girls in the

sample were related to their occupational expectations, when these girls were categorized by mental ability level. On the bases of the high C values, it may also be concluded that the relationships were strong.

Hypothesis 4(a): There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and socio-economic level.

Educational aspirations of high socio-economic level boys were compared with educational expectations of high socio-economic level boys. Also, educational aspirations of low socio-economic level boys were compared with educational expectations of low socio-economic level boys. In the case of the high socio-economic level boys, chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In the case of the low socio-economic level boys, chi square test of independence showed a probability of more than .05 of accepting the null hypothesis. Tables XXXVIII and XXXIX on pages 162 and 163 of Appendix D give the results of the analyses. No interpretations of these results has been made because there were only 25 boys of high socio-economic level and 25 boys of low socio-economic level. These numbers were considered insufficient for drawing valid conclusions.

Educational aspirations of high socio-economic level girls were compared with educational expectations of high socio-economic level girls. Also, educational aspirations of low socio-economic level girls were compared with educational expectations of low socio-economic level girls. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .54 were calculated. Tables XL and XLI on pages 164 and 165 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 4(a) was rejected for girls of high socio-economic level and for girls of low socio-economic level, and it may be concluded that the educational aspirations of girls in the sample were related to their educational expectations, when these girls were categorized by socio-economic level. On the bases of the high C values, it may also be concluded that the relationships were strong.

Hypothesis 4(b): There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex and socio-economic level.

Occupational aspirations of high socio-economic level boys were compared with occupational expectations of high socio-economic level boys. Also, occupational aspirations

of low socio-economic level boys were compared with occupational expectations of low socio-economic level boys. In both cases, chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. Tables LV and LVI on pages 179 and 180 of Appendix D give the results of the analyses. No interpretation of these results has been made because there were only 25 boys of high socio-economic level and 25 boys of low socio-economic level. These numbers were considered insufficient for drawing valid conclusions.

Occupational aspirations of high socio-economic level girls were compared with occupational expectations of high socio-economic level girls. Also, occupational aspirations of low socio-economic level girls were compared with occupational expectations of low socio-economic level girls. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .79 were calculated. Tables LVII and LVIII on pages 181 and 182 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 4(b) was rejected for girls of high socio-economic level and for girls of low socio-economic level, and it may be concluded that the occupational aspirations of girls in the sample were related to their occupational expectations, when these girls were categorized by socio-economic level. On the bases

of the high C values it may also be concluded that the relationships were strong.

Hypothesis 5(a): There is no relationship between the educational aspirations and the educational expectations of business education students when these students are categorized by sex and job experience.

Educational aspirations of boys with job experience were compared with educational expectations of boys with job experience. Also, educational aspirations of boys with no job experience were compared with educational expectations of boys with no job experience. In the case of the boys with job experience, chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In the case of the boys with no job experience, chi square test of independence showed a probability of more than .05 of accepting the null hypothesis. Tables XLII and XLIII on pages 166 and 167 of Appendix D give the results of the analyses. No interpretation of these results has been made because there were only 35 boys with job experience and 15 boys with no job experience. These numbers were considered insufficient for drawing valid conclusions.

Educational aspirations of girls with job experience were compared with educational expectations of girls with job experience. Also, educational aspirations of girls with no job experience were compared with educational expectations

of girls with no job experience. In both cases, chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .58 were calculated. Tables XLIV and XLV on pages 168 and 169 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 5(a) was rejected for girls with job experience and for girls with no job experience, and it may be concluded that the educational aspirations of girls in the sample were related to their educational expectations, when these girls were categorized by job experience. Also, on the bases of the high C values, it may be concluded that the relationships were strong.

Hypothesis 5(b): There is no relationship between the occupational aspirations and the occupational expectations of business education students when these students are categorized by sex and job experience.

Occupational aspirations of boys with job experience were compared with occupational expectations of boys with job experience. Also, occupational aspirations of boys with no job experience were compared with occupational expectations of boys with no job experience. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. Tables LIX and LX on pages 183 and 184 of Appendix D give the results of

the analyses. No interpretation of these results has been made because there were only 35 boys with job experience and 15 boys with no job experience. These numbers were considered insufficient for drawing valid conclusions.

Occupational aspirations of girls with job experience were compared with occupational expectations of girls with job experience. Also, occupational aspirations of girls with no job experience were compared with occupational expectations of girls with no job experience. In both cases chi square test of independence showed a probability of less than .05 of accepting the null hypothesis. In both cases C values exceeding .80 were calculated. Tables LXI and LXII on pages 185 and 186 of Appendix D give the results of the analyses. On the basis of the chi square finding, Hypothesis 5(b) was rejected for girls with job experience and for girls with no job experience, and it may be concluded that the occupational aspirations of girls in the sample were related to their occupational expectations, when these girls were categorized by job experience. Also, on the bases of the high C values, it may be concluded that the relationships were strong.

Summary of Findings Related to Hypotheses One to Five

The results of the study showed that there was a significant relationship between the educational aspirations

and the educational expectations, and between the occupational aspirations and the occupational expectations of the business education students included in the study. Similarly, there was a significant relationship between these factors when the students were categorized by sex and when girls in the study were categorized by mental ability level, socio-economic level, and job experience. Because of the small number of boys in each category, no conclusions were drawn concerning any relationships found between these factors when boys in the study were categorized by mental ability level, socio-economic level, and job experience.. Chapter V contains the implications and recommendations for further study of the educational and occupational aspirations and expectations of business education students.

CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of the study was to determine why students have chosen the business education program in high school, and what educational levels and career goals they: (1) would like to attain, and (2) expect to attain. In accordance with this purpose, a random sample of grade eleven business education students in the Edmonton Public School System was surveyed in the spring of 1969. Only non-matriculants registered in a minimum of fifteen high school credits in business education courses were included in the study.

In relation to choice of program, an effort was made, first, to determine which programs are generally regarded by students as best and poorest for boys and girls and which programs are generally regarded by students as leading to the best and poorest jobs for males and females. From the findings of the study, it was concluded that students generally regarded the business education program more than any other program as best for girls and as leading to the best jobs for females. It was also concluded that students generally regarded the business education program more than any other program except the general program as poorest for boys and as leading to the poorest jobs for males. Secondly, an effort was made to

determine main reasons of students for choosing business education. It was found that about thirty per cent of the boys and about sixty per cent of the girls indicated that they chose business education because they liked the program. Approximately twenty-six per cent of the boys and approximately twenty-four per cent of the girls indicated that they chose business education for personal use while about twenty-six per cent of the boys and sixty-seven per cent of the girls indicated they chose business education because it enables them to secure employment on leaving high school. Finally, some students felt they had not chosen their program: approximately fifty-three per cent of the boys and approximately twenty per cent of the girls said they were placed in business education by the school.

Over one quarter of the boys indicated they would like to attain a university level education (educational aspirations) and almost half aspired to a diploma from the Northern Alberta Institute of Technology (NAIT). Less than ten per cent of the boys, however, expected to attain a university education (educational expectations) while about sixty per cent of those aspiring to NAIT expected to attain a NAIT diploma.

Almost one-third of the girls indicated they would like to attain a university level education, and about one-quarter of the girls aspired to NAIT. Less than one per

cent of the girls expected to acquire a university education, and, of those aspiring to NAIT, less than forty per cent expected to attain a NAIT diploma.

It was found that about one-half of the students did not expect to attain their educational aspirations. One out of two of these students perceived lack of ability as the barrier between their aspirations and expectations.

Almost thirty per cent of the girls indicated they would like a professional or semi-professional level job (occupational aspirations), the majority of girls, however, expected to work at the clerical or sales level (occupational expectations). Only about ten per cent of the boys either aspired or expected to work at the clerical or sales level. Almost fifty per cent of the boys reported that they did not know, were not sure, or had not thought about the type of career they would like to have and approximately sixty per cent reported that they did not know, were not sure, or had not thought about the type of career they expected to have.

When data were excluded for students with uncertain or "other" educational and occupational aspirations or expectations, it was concluded that, in general, the educational and occupational aspirations of the remaining students tended to coincide with or exceed their educational and occupational expectations. For educational aspirations

and expectations, this conclusion was based on data for eighty-six per cent of the boys and approximately eighty per cent of the girls while for occupational aspirations and expectations it was based on data for thirty per cent of the boys and approximately sixty per cent of the girls.

In educational planning, boys indicated that a guidance counselor had influenced them most to enter business education. Almost half of the girls reported that no single factor had influenced them most to enter business education. In occupational planning, most of the students reported that no single factor had influenced them in planning their career.

Approximately thirty-six per cent of the students expected to re-train for a new type of work while approximately twenty-four per cent of the students expected to re-train for the same type of work.

Finally, significant relationships were found between educational aspirations and expectations and between occupational aspirations and expectations of students included in the study. Similarly, significant relationships were found between these factors when the students were categorized by sex and when girls in the study were categorized by mental ability level, socio-economic level, and job experience. Because of the small number of boys in each category, no conclusions were drawn concerning any relationships found between these factors when boys in the

study were categorized by mental ability level, socio-economic level, and job experience.

IMPLICATIONS

The following implications arise from the findings of this study:

1. The finding that the majority of the students surveyed did not feel suited for business education may imply that many business education students should not be in the program.
2. The fact that fifty-three to fifty-five per cent of the boys and approximately twenty per cent of the girls said they were placed in business education by the school implies that these students felt they had no choice regarding their route in high school. Lack of choice might explain many discipline problems facing school personnel and parents; it might also explain the low motivation toward studies displayed by some students in business education.
3. The large percentage of boys who were uncertain of their career implies that boys may not be aware of employment opportunities for males in business. Improvement is needed in the dissemination of occupational information in schools so that students, especially boys, might

be better informed of these opportunities.

4. Few students appeared to be aware that they might have to re-train for a new type of work or for the same type of work. This finding suggests that students should be informed that educational institutions cannot provide life-time occupational preparation.
5. In general, aspirations of students in the study tended to coincide with or exceed their expectations. If a student's aspirations exceed his expectations, the result could be dissatisfaction on the part of the student with his ability to attain his goals. This dissatisfaction could increase his drive to succeed or it could lead to frustration. In the latter instance, he could become a discipline problem or he could drop out of school. The implication is that parents and school personnel should guide and assist students in setting and achieving realizable goals.

RECOMMENDATIONS

The following recommendations are suggested for further study:

1. A follow-up study should be carried out to determine whether the students included in this study

eventually realize their educational and occupational aspirations or their educational and occupational expectations.

2. Studies could be conducted in other school systems to see if educational and occupational aspirations and expectations of business education students vary from one school system or locality to another. Suggestions for revising the questionnaire used in this study appear in Appendix A.
3. A study of the educational and occupational aspirations and expectations of matriculation-business students could be carried out. Many office-bound students were eliminated from this study because they were in the matriculation program.

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ANSWER SHEET
PART I

School _____

Age _____ Date of Birth _____
(Month, day, year)Name _____ Sex M F
(print) Last Name Given Name(s) (circle)Father's or Male Guardian's Occupation _____
(Describe what he does and where he works, e.g. sales clerk at Eaton's)

Mother's or Female Guardian's Occupation _____

Have you had any job experience in business or industry?
Yes _____ No _____.

If you have a job in business or industry (or have had one in the past), do you (or did you) work (check as many as apply to you):

Full-time (8 hours a day) _____ Part-time _____
Evenings _____ Saturdays _____ During Vacation _____
Other (Specify) _____

Describe what you do (or did) and where you work (or worked): _____

How long have you been working (or did you work)?

Number of: Years _____ Months _____ Days _____.

PART II

- | | |
|---------------------------|---------------------------------|
| 1. a b c d e f g | 18. a b c d _____ |
| 2. a b c d e f g | 19. a b c _____ |
| 3. a b c d e f g h i j | 20. a b c d e |
| 4. a b c d e f g | 21. a b c |
| 5. a b c d e f g | 22. a b c |
| 6. a b c d e f g | 23. a b c |
| 7. a b c d e f g | 24. a b c d e f g h i j _____ |
| 8. a b c d e f g | _____ |
| 9. a b c d e f g | 25. a b c d e f g h i j k _____ |
| 10. a b c d e f g | _____ |
| 11. a b c d e f g | 26. a b c d e |
| 12. a b c d | 27. a b c |
| 13. a b c d e | 28. a b c d e |
| 14. a b c d | 29. a b c d e f g |
| 15. a b c d e f g h _____ | |
| 16. a b c d e f g h _____ | |
| 17. a b c d e _____ | |

BUSINESS EDUCATION QUESTIONNAIRE

Note: In addition to this booklet, you should have an ANSWER SHEET. Do not write in this booklet. Also, it would be preferable to use pencil so that any changes can be easily erased.

PART I

Consists of general information questions, all of which are found on the top half of the answer sheet and are self-explanatory.

PART II

Pages 1 to 6 of this booklet. All answers are to be placed on the answer sheet. A sample question follows:

Sample Question

1. How important do you think your marks will be in getting the kind of job you want? (circle one on the answer sheet)
 - a. Very important
 - b. Quite important
 - c. Not very important
 - d. Not important at all
 - e. Don't know

If you thought that your marks were very important in getting the kind of job you want, your answer would look like this:

1. (a) b c d e

Begin by filling in the top half (PART I) of the answer sheet, when you have completed that, go on to PART II in this booklet. It is not possible to "fail" this questionnaire, and you will be given ample time to finish. Work quickly, however, and do not spend too much time on any one question.

The purpose of this questionnaire is to add to our knowledge of students and to improve business education programs in the future. All information will be kept in the strictest confidence, and at no time will individuals or specific schools be named in reporting the data.

Thank you for your cooperation, now, look at the ANSWER SHEET and begin with PART I.

PART II BUSINESS EDUCATION QUESTIONNAIRE

Directions: All of your answers are to be placed on the ANSWER SHEET. Do not write on this booklet. The following list of programs will be used in answering some of the questions.

List of Programs

- a. Technical-Vocational Program (eg. Automotives; Beauty Culture)
- b. Matriculation-Technical Program (eg. Electronics with matriculation)
- c. Business Education
- d. Matriculation
- e. Matriculation-Business Education
- f. General Program
- g. Other Program

1. Since you entered high school, have you been in a program other than business education?

If yes, look at the list of programs and indicate the one you were in before by circling the appropriate letter opposite number 1 on the answer sheet.

If no, circle "c" opposite number 1.

2. What was the main reason that made you leave the program you were in before? (circle only one)

- a. Marks were not good enough
- b. It did not lead to good job opportunities
- c. There was too much work
- d. It did not lead to further education after high school
- e. None of the above reasons
- f. Circle "f" if you don't know or can't remember
- g. Circle "g" if you have never been in another program in high school

3. What program do you think you are most suited for? Look at the list of programs, and indicate it opposite number 3 on the answer sheet. If you are not sure, but you think you are not suited for business education, circle "h", if you don't know, circle "i", if you have never thought about it, circle "j", opposite number 3.

For Questions 4 to 11, look at the list of programs and indicate which program in high school is:

- 4. Generally regarded by students as best for boys.
- 5. Generally regarded by students as poorest for boys.
- 6. Generally regarded by students as best for girls.
- 7. Generally regarded by students as poorest for girls.

8. Generally regarded by students as leading to the best jobs for males.
9. Generally regarded by students as leading to the poorest jobs for males.
10. Generally regarded by students as leading to the best jobs for females.
11. Generally regarded by students as leading to the poorest jobs for females.
12. I am taking business education mainly because (pick the answer which best applies to you, circle only one)
 - a. I did not like the subjects in the other programs
 - b. I like the subjects in business education
 - c. I was put in business education by the school
 - d. I don't know or am not sure
13. I am taking business education mainly because (pick the answer which best applies to you, circle only one)

STOP! If you circled "c" in Question 12, circle "c" opposite number 13 on the answer sheet and go on to the next question.

 - a. I can use many of the things I learn in everyday life
 - b. I can use what I learn in almost any career
 - c. I was put in business education by the school
 - d. It trains me for a career in business
 - e. I don't know or am not sure
14. I am taking business education mainly because (pick the answer which best applies to you, circle only one)

STOP! If you circled "c" in Questions 12 and 13, circle "c" opposite number 14 on the answer sheet and go on to the next question.

 - a. It leads to further education after high school
 - b. It enables me to get a job as soon as I leave high school
 - c. I was put in business education by the school
 - d. I don't know or am not sure
15. If it were left to your choice, and you could afford it, what is the highest level of education you would really like to attain? (circle only one)
 - a. Complete grade eleven
 - b. High school diploma
 - c. Senior matriculation
 - d. Diploma from NAIT
 - e. University (bachelor's degree)
 - f. Graduate degree (Master of Arts; Ph. D.)
 - g. Don't know
 - h. Other (specify in the space provided on the answer sheet)

16. Sometimes, what we would like to do isn't the same as what we expect to do. What is the highest level of education you really expect to attain? (circle only one)
- a. Complete grade eleven
 - b. High school diploma
 - c. Senior matriculation
 - d. Diploma from NAIT
 - e. University (bachelor's degree)
 - f. Graduate degree (Master of Arts; Ph. D.)
 - g. Don't know
 - h. Other (specify in the space provided on the answer sheet)

17. If you do not expect to reach the level of education named in Question 15, what are the reasons? (circle as many as apply to you)

STOP! If you circled the same letter in Questions 15 and 16, circle "d" opposite number 17 on the answer sheet and go on to Question 18.

- a. Not enough money
 - b. Parents don't want me to go on
 - c. I don't have the ability
 - d. I do expect to reach this level of education
 - e. Other (specify in the space provided on the answer sheet)
18. If you had your choice, what type of work or occupation would you like to have most as a career? (Write the type of work or occupation in the space provided below number 18 on the answer sheet. If you are undecided between two or more, write them down below number 18.)
- If you have not thought much about it yet, circle "a" opposite number 18. If you don't know, circle "b" opposite number 18. If you are not sure, circle "c" opposite number 18. If no type of work or occupation in particular, circle "d" opposite number 18.
19. Sometimes, what we would like to do isn't the same as what we expect to do. Considering your abilities, qualifications now held and expected and the opportunities for jobs, what type of work or occupation do you really expect to have as a career? (Write the type of work or occupation in the space provided below number 19 on the answer sheet)
- If you have not thought about it yet, circle "a" opposite number 19. If you don't know, circle "b" opposite number 19. If you are not sure, circle "c" opposite number 19.

20. How sure are you about what you will do as a career?
(choose one)
- a. Very sure
 - b. Fairly sure
 - c. Not too sure
 - d. Not sure at all
 - e. Circle "e" if you have not thought about a career as yet
21. Do you expect to work in a business occupation when you have completed your education?
- a. Yes
 - b. No
 - c. Don't know or undecided
22. Do you think you will have to re-train and start more than one type of work in your lifetime?
- a. Yes
 - b. No
 - c. Don't know
23. Do you think you will have to re-train in the same type of work?
- a. Yes
 - b. No
 - c. Don't know
24. Who or what influenced you most to enter business education? (circle only one on the answer sheet)
- a. Your parents
 - b. Other relatives or adults
 - c. A teacher
 - d. The principal or assistant principal
 - e. A guidance counselor
 - f. Friends your own age
 - g. Television, newspaper, radio
 - h. No one influenced me
 - i. Don't know or can't remember
 - j. Other (specify in the space provided on the answer sheet)

25. Who or what influenced you most so far in planning your occupational career? (circle only one on the answer sheet)
- a. Your parents
 - b. Other relatives or adults
 - c. A teacher
 - d. The principal or assistant principal
 - e. A guidance counselor
 - f. Friends your own age
 - g. Television, newspaper, radio
 - h. No one influenced me
 - i. Don't know or can't remember
 - j. Circle "j" if you have not planned an occupation as yet
 - k. Other (specify in the space provided on the answer sheet)
26. Regarding your choice of occupation, do your parents advise you which occupations not to choose? (circle only one)
- a. Never
 - b. Sometimes
 - c. Often
 - d. My parents do not advise me on my choice of occupation
 - e. Don't know or can't remember
27. Does your school have a place where students can find books, magazines, and other information about different occupations?
- a. Yes
 - b. No
 - c. Don't know
28. How often since the beginning of this school year have you gone there to find some of this material to read?
- a. Never
 - b. Once
 - c. Twice
 - d. Three or more times
 - e. There is no such place in this school to my knowledge
29. Girls Only (Boys: circle "g" opposite number 29 on the answer sheet) Do you expect to work full-time after you finish your schooling?
- a. Not at all
 - b. Only before I am married
 - c. Only after I am married
 - d. Both before and after marriage
 - e. Only after children are grown
 - f. Have not thought about it yet

Before you turn in your paper, have you:

Filled in all the information asked for in Part I of the answer sheet?

Erased all changes completely and clearly indicated corrections?

SUGGESTIONS FOR REVISING THE BUSINESS EDUCATION
QUESTIONNAIRE

The Business Education Questionnaire should be revised as follows:

1. The words "generally regarded by students as" should be omitted from Items 4 to 11. This revision should make it clear that it is the respondent's own preferences that are required.
2. Item 21 should be omitted as it is a repetition of Item 19.

A P P E N D I X B

INSTRUCTIONS FOR ADMINISTERING THE BUSINESS
EDUCATION QUESTIONNAIRE

In order that as much consistency as possible is maintained from school to school, please observe the following steps in administering the questionnaire.

1. Furnish each student with:
 - a question booklet
 - an answer sheet
 - a pencil
2. Before permitting anyone to begin writing, read the instructions on the cover page of the question booklet aloud as the students follow on their copies. When this has been done, allow the students to start writing.
3. There is no time limit.
4. Questions regarding PART I and the mechanics (eg. where to indicate an answer) of PART II may be answered. If a student is in doubt as to what constitutes job experience, ask him to describe his work as fully as possible.
5. Please DO NOT attempt to interpret the meaning of questions in PART II for the students.
6. Please check to see that the information asked for in PART I has been filled in before the student leaves.
7. Please destroy the question booklets following administration of the questionnaire.

A P P E N D I X C

TABLE XIX

OTHER EDUCATIONAL ASPIRATIONS OF BUSINESS
EDUCATION STUDENTS

Aspirations	Boys	Girls
Agricultural college	1	
Beautician training	1	2
Business college		14
College, other		4
Commercial art training		1
Drama training		3
Dress design, fashions		1
Registered nurse		1
Riding instructor		1
Social work training		1
Veterinary training		2
Unspecified	2	3
Total	4	33

TABLE XX
OTHER EDUCATIONAL EXPECTATIONS OF BUSINESS
EDUCATION STUDENTS

Expectations	Boys	Girls
Agricultural college	1	
Beautician training		1
Business college		14
College, other		2
Drama training		1
Nursing aide training		2
University, first year		1
Unspecified	1	1
Total	2	22

TABLE XXI
OTHER REASONS FOR NON-ATTAINMENT OF
EDUCATIONAL ASPIRATIONS

Reasons	Boys	Girls
Entering employment immediately after leaving school	4	7
Not enough time		6
Lack of concentration, tired of school	4	4
Higher level of education not needed for the type of occupation desired	1	5
Enrolled in wrong course	2	4
Marriage plans		3
Low marks	1	1
Personal problems		1
Unspecified	1	7
Total	13	38

TABLE XXII

OCCUPATIONS ASPIRED TO AND EXPECTED BY BOYS

Occupations	Aspire	Expect	Occupations	Aspire	Expect
Accountant	3	3	Game Warden	1	
Airplane Mechanic	1		Labourer		2
Banker		1	Lawyer	2	
Biologist	1		Mechanic, n.e.s.	1	
Bookkeeper	1	1	Medical Technician	1	1
Carpenter	1		Office Clerk		2
Chef	1	1	Plumber	1	
Commercial Pilot	2	1	Policeman	1	
Computer Programmer	2	1	Pressman		1
Engineer, Civil	1		Pro Hockey Player	1	
Farmer	1	1	Salesman	4	1
Foreman, Shop		1	Social Worker	1	
Forester	1	1	Truck Driver		1

TABLE XXIII
OCCUPATIONS ASPIRED TO AND EXPECTED BY GIRLS

Occupations	Aspire	Expect	Occupations	Aspire	Expect
Accountant	1	1	Office Clerk	6	25
Air Hostess	22	15	Photographer	1	1
Armed Forces	2	2	Physician	2	
Bank Teller	2	2	Police Work	3	
Beautician	4	4	Psychiatrist	2	
Bookkeeper	3	2	Receptionist	7	10
Calculator Operator	3	5	Recreation Director	2	1
Cashier	1	3	Registered Nurse	9	
Clergy	1		Riding Instructress	1	
Clerk-Typist	6	13	Sales Clerk	2	3
Commercial Artist	2	1	Sculptor	1	
Computer Programmer	3	5	Secretary, legal	10	2
Dental Assistant	9	5	Secretary, medical	1	1
Entertainer	5	2	Secretary, n.e.s.	34	68
Farm and Ranch	3		Secretary, private	8	10
Fashion Designer	3	2	Social Worker	16	3
Geologist	1		Stenographer, court	5	
Keypunch Operator	6	10	Stenographer, legal	3	1
Manager, Boutique	1	1	Stenographer, n.e.s.	8	16
Manufacturer's Rep	4	3	Teacher	14	1
Medical Technician	4	2	Telephone Operator	3	2
Model	2		Veterinarian	6	
Nursing Aide	2	5			

TABLE XXIV

OTHER FACTORS INFLUENCING ENTRANCE INTO BUSINESS
EDUCATION

Factors	Boys	Girls	Total
Placed in business education by the school	10	8	18
Marks	3	8	11
Practical-vocational aspects of the course		5	5
Interest		4	4
Suitability for the course		3	3
Subjects easy		3	3
Person employed in a business occupation	1	1	2
Unspecified	4	2	6
Total	18	34	52

TABLE XXV

OTHER FACTORS INFLUENCING OCCUPATIONAL PLANS

Factors	Boys	Girls	Total
Person employed in a business occupation	1	4	5
Marks		4	4
Availability of employment in a business occupation		2	2
Interest		1	1
NAIT calendar	1		1
Part-time work	1		1
Unspecified	1	2	3
Total	4	13	17

TABLE XXVI

FREQUENCY OF PARENTAL ADVICE REGARDING OCCUPATIONS
STUDENTS SHOULD AVOID

Frequency	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Never	9	18.0	44	16.8	53	17.0
Sometimes	23	46.0	121	46.2	144	46.2
Often	2	4.0	22	8.4	24	7.7
No parental advice on choice of occupation	14	28.0	73	27.9	87	27.9
Don't know or can't remember	2	4.0	2	0.8	4	1.3
Total	50	100.0	262	100.0	312	100.1

$$\chi^2 = 4.523 \quad D/F = 4 \quad P = .339871 \quad C = .1195$$

TABLE XXVII

SCHOOL MATERIALS ON OCCUPATIONS

Students' Responses	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Material available	42	84.0	228	88.0	270	87.4
Material not available	3	6.0	3	1.2	6	1.9
Don't know	5	10.0	28	10.8	33	10.7
Total	50	100.0	259	100.0	309	100.0

$$\chi^2 = 5.163 \quad D/F = 2 \quad P = .075649 \quad C = .1282$$

TABLE XXVIII

FREQUENCY OF STUDENT USE OF SCHOOL MATERIALS
ON OCCUPATIONS

Frequency	Numbers and Percentages by Sex					
	Boys		Girls		Total	
	N	%	N	%	N	%
Never used materials	21	42.0	145	56.0	166	53.7
Used materials once	8	16.0	39	15.1	47	15.2
Used materials twice	4	8.0	35	13.5	39	12.6
Used materials three or more times	13	26.0	36	13.9	49	15.9
Not aware materials available	4	8.0	4	1.5	8	2.6
Total	50	100.0	259	100.0	309	100.0

$$\chi^2 = 13.175 \quad D/F = 4 \quad P = .010450 \quad C = .2022$$

A P P E N D I X D

LEGEND FOR TABLES XXIX - XLV INCLUSIVE
EDUCATIONAL ASPIRATIONS AND
EXPECTATIONS

1. Grade eleven
2. High school diploma
3. Senior matriculation
4. Diploma from the Northern Alberta Institute of Technology
5. Bachelor's degree
6. Graduate degree
7. Students responding "Don't know"
8. Other educational aspirations and expectations

LEGEND FOR TABLES XLVI - LXII INCLUSIVE
OCCUPATIONAL ASPIRATIONS AND
EXPECTATIONS

1. Professional
2. Semi-professional
3. Proprietors, managers, and officials, large^x
4. Proprietors, managers, and officials, small
5. Clerical and sales
6. Skilled
7. Semi-skilled
8. Unskilled
9. Farm
10. Students responding "Have not thought about a career"
11. Students responding "Don't know"
12. Students responding "Not sure"
13. Students responding "No type of work or occupation in particular"

^xNo students had aspirations or expectations for this occupational level.

TABLE XXIX
EDUCATIONAL ASPIRATIONS OF STUDENTS

Students	Aspirations ^x								Total
	1	2	3	4	5	6	7	8	
Boys	0	4	5	23	9	4	1	4	50
Girls	1	65	12	72	46	30	4	33	263
Total N	1	69	17	95	55	34	5	37	313
Total per cent	0.3	22.0	5.4	30.4	17.6	10.9	1.6	11.8	100.0
Per cent by row									
Boys	0.0	8.0	10.0	46.0	18.0	8.0	2.0	8.0	16.0
Girls	0.4	24.7	4.6	27.4	17.5	11.4	1.5	12.5	84.0

^xLegend appears on page 152

$\chi^2 = 13.853$ D/F = 7 P = .053860 C = .2059

TABLE XXX

EDUCATIONAL EXPECTATIONS OF STUDENTS

Students	Expectations ^x								Total
	1	2	3	4	5	6	7	8	
Boys	2	18	0	22	3	1	2	2	50
Girls	8	169	1	57	1	0	5	22	263
Total N	10	187	1	79	4	1	7	24	313
Total per cent	3.2	59.7	0.3	25.2	1.3	0.3	2.2	7.7	100.0
Per cent by row									
Boys	4.0	36.0	0.0	44.0	6.0	2.0	4.0	4.0	16.0
Girls	3.0	64.3	0.4	21.7	0.4	0.0	1.9	8.4	84.0

^xLegend appears on page 152

$\chi^2 = 31.738$ D/F = 7 P = .000045 C = .3034

TABLE XXXI

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF STUDENTS

Aspi- rations ^x	Expectations ^x								Total
	1	2	3	4	5	6	7	8	
1	0	1	0	0	0	0	0	0	1
2	5	61	0	0	0	0	0	3	69
3	1	13	1	2	0	0	0	0	17
4	1	48	0	42	0	0	1	3	95
5	1	28	0	19	2	0	3	2	55
6	0	19	0	10	2	1	0	2	34
7	0	4	0	1	0	0	0	0	5
8	2	13	0	5	0	0	3	14	37
Total N	10	187	1	79	4	1	7	24	313
Total per cent	3.2	59.7	0.3	25.2	1.3	0.3	2.2	7.7	100.0
Per cent by row									
1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
2	7.2	88.4	0.0	0.0	0.0	0.0	0.0	4.3	22.0
3	5.9	76.5	5.9	11.8	0.0	0.0	0.0	0.0	5.4
4	1.1	50.5	0.0	44.2	0.0	0.0	1.1	3.2	30.4
5	1.8	50.9	0.0	34.5	3.6	0.0	5.5	3.6	17.6
6	0.0	55.9	0.0	29.4	5.9	2.9	0.0	5.9	10.9
7	0.0	80.0	0.0	20.0	0.0	0.0	0.0	0.0	1.6
8	5.4	35.1	0.0	13.5	0.0	0.0	8.1	37.8	11.8

^xLegend appears on page 152 $\chi^2 = 159.579$ D/F = 49 P = .000000 C = .5811

TABLE XXXII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS

Aspirations ^x	Expectations ^x							Total
	1	2	4	5	6	7	8	
2	0	4	0	0	0	0	0	4
3	1	3	1	0	0	0	0	5
4	1	7	14	0	0	1	0	23
5	0	0	6	2	0	1	0	9
6	0	1	1	1	1	0	0	4
7	0	1	0	0	0	0	0	1
8	0	2	0	0	0	0	2	4
Total N	2	18	22	3	1	2	2	50
Total per cent	4.0	36.0	44.0	6.0	2.0	4.0	4.0	100.0
Per cent by row								
2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	8.0
3	20.0	60.0	20.0	0.0	0.0	0.0	0.0	10.0
4	4.3	30.4	60.9	0.0	0.0	4.3	0.0	46.0
5	0.0	0.0	66.7	22.2	0.0	11.1	0.0	18.0
6	0.0	25.0	25.0	25.0	25.0	0.0	0.0	8.0
7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	2.0
8	0.0	50.0	0.0	0.0	0.0	0.0	50.0	8.0

^xLegend appears on page 152

$\chi^2 = 66.786$ D/F = 36 P = .001366 C = .7562

TABLE XXXIII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS

Aspirations ^x	Expectations ^x							Total
	1	2	3	4	5	7	8	
1	0	1	0	0	0	0	0	1
2	5	57	0	0	0	0	3	65
3	0	10	1	1	0	0	0	12
4	0	41	0	28	0	0	3	72
5	1	28	0	13	0	2	2	46
6	0	18	0	9	1	0	2	30
7	0	3	0	1	0	0	0	4
8	2	11	0	5	0	3	12	33
Total N	8	169	1	57	1	5	22	263
Total per cent	3.0	64.3	0.4	21.7	0.4	1.9	8.4	100.0
Per cent by row								
1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.4
2	7.7	87.7	0.0	0.0	0.0	0.0	4.6	24.7
3	0.0	83.3	8.3	8.3	0.0	0.0	0.0	4.6
4	0.0	56.9	0.0	38.9	0.0	0.0	4.2	27.4
5	2.2	60.9	0.0	28.3	0.0	4.3	4.3	17.5
6	0.0	60.0	0.0	30.0	3.3	0.0	6.7	11.4
7	0.0	75.0	0.0	25.0	0.0	0.0	0.0	1.5
8	6.1	33.3	0.0	15.2	0.0	9.1	36.4	12.5

^xLegend appears on page 152

$$\chi^2 = 127.762 \quad D/F = 42 \quad P = .000000 \quad C = .5718$$

TABLE XXXIV

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
OF HIGH MENTAL ABILITY

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	7	8	
2	0	3	0	0	0	0	3
3	0	2	0	0	0	0	2
4	1	4	4	0	0	0	9
5	0	0	2	1	1	0	4
6	0	1	0	1	0	0	2
7	0	1	0	0	0	0	1
8	0	1	0	0	0	1	2
Total N	1	12	6	2	1	1	23
Total per cent	4.3	52.2	26.1	8.7	4.3	4.3	100.0
Per cent by row							
2	0.0	100.0	0.0	0.0	0.0	0.0	13.0
3	0.0	100.0	0.0	0.0	0.0	0.0	8.7
4	11.1	44.4	44.4	0.0	0.0	0.0	39.1
5	0.0	0.0	50.0	25.0	25.0	0.0	17.4
6	0.0	50.0	0.0	50.0	0.0	0.0	8.7
7	0.0	100.0	0.0	0.0	0.0	0.0	4.3
8	0.0	50.0	0.0	0.0	0.0	50.0	8.7

^xLegend appears on page 152 $\chi^2 = 32.903$ $D/F = 30$ $P = .326788$ $C = .7672$

TABLE XXXV

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
OF LOW MENTAL ABILITY

Aspirations ^x	Expectations ^x							Total
	1	2	4	5	6	7	8	
2	0	1	0	0	0	0	0	1
3	1	1	1	0	0	0	0	3
4	0	3	10	0	0	1	0	14
5	0	0	4	1	0	0	0	5
6	0	0	1	0	1	0	0	2
8	0	1	0	0	0	0	1	2
Total N	1	6	16	1	1	1	1	27
Total per cent	3.7	22.2	59.3	3.7	3.7	3.7	3.7	100.0
Per cent by row								
2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	3.7
3	33.3	33.3	33.3	0.0	0.0	0.0	0.0	11.1
4	0.0	21.4	71.4	0.0	0.0	7.1	0.0	51.9
5	0.0	0.0	80.0	20.0	0.0	0.0	0.0	18.5
6	0.0	0.0	50.0	0.0	50.0	0.0	0.0	7.4
8	0.0	50.0	0.0	0.0	0.0	0.0	50.0	7.4

^xLegend appears on page 152 $\chi^2 = 46.331$ D/F = 30 P = .028887 C = .7949

TABLE XXXVI

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS
OF HIGH MENTAL ABILITY

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	7	8	
2	2	25	0	0	0	1	28
3	0	6	1	0	0	0	7
4	0	26	16	0	0	1	43
5	1	11	7	0	1	1	21
6	0	8	5	1	0	1	15
7	0	1	0	0	0	0	1
8	2	5	2	0	2	9	20
Total N	5	82	31	1	3	13	135
Total per cent	3.7	60.7	23.0	0.7	2.2	9.6	100.0
Per cent by row							
2	7.1	89.3	0.0	0.0	0.0	3.6	20.7
3	0.0	85.7	14.3	0.0	0.0	0.0	5.2
4	0.0	60.5	37.2	0.0	0.0	2.3	31.9
5	4.8	52.4	33.3	0.0	4.8	4.8	15.6
6	0.0	53.3	33.3	6.7	0.0	6.7	11.1
7	0.0	100.0	0.0	0.0	0.0	0.0	0.7
8	10.0	25.0	10.0	0.0	10.0	45.0	14.8

^xLegend appears on page 152 $\chi^2 = 75.694$ D/F = 30 P = .000008 C = .5994

TABLE XXXVII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS
OF LOW MENTAL ABILITY

Aspirations ^x	Expectations ^x						Total
	1	2	3	4	7	8	
1	0	1	0	0	0	0	1
2	3	32	0	0	0	2	37
3	0	4	1	0	0	0	5
4	0	15	0	12	0	2	29
5	0	17	0	6	1	1	25
6	0	10	0	4	0	1	15
7	0	2	0	1	0	0	3
8	0	6	0	3	1	3	13
Total N	3	87	1	26	2	9	128
Total per cent	2.3	68.0	0.8	20.3	1.6	7.0	100.0
Per cent by row							
1	0.0	100.0	0.0	0.0	0.0	0.0	0.8
2	8.1	86.5	0.0	0.0	0.0	5.4	28.9
3	0.0	80.0	20.0	0.0	0.0	0.0	3.9
4	0.0	51.7	0.0	41.4	0.0	6.9	22.7
5	0.0	68.0	0.0	24.0	4.0	4.0	19.5
6	0.0	66.7	0.0	26.7	0.0	6.7	11.7
7	0.0	66.7	0.0	33.3	0.0	0.0	2.3
8	0.0	46.2	0.0	23.1	7.7	23.1	10.2

^xLegend appears on page 152

$$\chi^2 = 63.324 \quad D/F = 35 \quad P = .002348 \quad C = .5753$$

TABLE XXXVIII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
OF HIGH SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	7	8	
3	1	2	0	0	0	0	3
4	0	3	7	0	0	0	10
5	0	0	5	1	1	0	7
6	0	0	1	0	0	0	1
7	0	1	0	0	0	0	1
8	0	1	0	0	0	2	3
Total N	1	7	13	1	1	2	25
Total per cent	4.0	28.0	52.0	4.0	4.0	8.0	100.0
Per cent by row							
3	33.3	66.7	0.0	0.0	0.0	0.0	12.0
4	0.0	30.0	70.0	0.0	0.0	0.0	40.0
5	0.0	0.0	71.4	14.3	14.3	0.0	28.0
6	0.0	0.0	100.0	0.0	0.0	0.0	4.0
7	0.0	100.0	0.0	0.0	0.0	0.0	4.0
8	0.0	33.3	0.0	0.0	0.0	66.7	12.0

^xLegend appears on page 152

$$\chi^2 = 38.095 \quad D/F = 25 \quad P = .045282 \quad C = .7770$$

TABLE XXXIX

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
OF LOW SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	6	7	
2	0	4	0	0	0	0	4
3	0	1	1	0	0	0	2
4	1	4	7	0	0	1	13
5	0	0	1	1	0	0	2
6	0	1	0	1	1	0	3
8	0	1	0	0	0	0	1
Total N	1	11	9	2	1	1	25
Total per cent	4.0	44.0	36.0	8.0	4.0	4.0	100.0
Per cent by row							
2	0.0	100.0	0.0	0.0	0.0	0.0	16.0
3	0.0	50.0	50.0	0.0	0.0	0.0	8.0
4	7.7	30.8	53.8	0.0	0.0	7.7	52.0
5	0.0	0.0	50.0	50.0	0.0	0.0	8.0
6	0.0	33.3	0.0	33.3	33.3	0.0	12.0
8	0.0	100.0	0.0	0.0	0.0	0.0	4.0

^xLegend appears on page 152

$\chi^2 = 26.899$ D/F = 25 P = .360963 C = .7199

TABLE XL

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS
OF HIGH SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x						Total
	1	2	3	4	7	8	
2	3	24	0	0	0	1	28
3	0	4	1	1	0	0	6
4	0	21	0	16	0	0	37
5	0	13	0	9	1	1	24
6	0	9	0	6	0	0	15
7	0	3	0	0	0	0	3
8	0	5	0	2	2	5	14
Total N	3	79	1	34	3	7	127
Total per cent	2.4	62.2	0.8	26.8	2.4	5.5	100.0
Per cent by row							
2	10.7	85.7	0.0	0.0	0.0	3.6	22.0
3	0.0	66.7	16.7	16.7	0.0	0.0	4.7
4	0.0	56.8	0.0	43.2	0.0	0.0	29.1
5	0.0	54.2	0.0	37.5	4.2	4.2	18.9
6	0.0	60.0	0.0	40.0	0.0	0.0	11.8
7	0.0	100.0	0.0	0.0	0.0	0.0	2.4
8	0.0	35.7	0.0	14.3	14.3	35.7	11.0

^xLegend appears on page 152 $\chi^2 = 88.753$ D/F = 30 P = .000000 C = .6414

TABLE XLI

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF
GIRLS OF LOW SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	7	8	
1	0	1	0	0	0	0	1
2	2	33	0	0	0	2	37
3	0	6	0	0	0	0	6
4	0	20	12	0	0	3	35
5	1	15	4	0	1	1	22
6	0	9	3	1	0	2	15
7	0	0	1	0	0	0	1
8	2	6	3	0	1	7	19
Total N	5	90	23	1	2	15	136
Total per cent	3.7	66.2	16.9	0.7	1.5	11.0	100.0
Per cent by row							
1	0.0	100.0	0.0	0.0	0.0	0.0	0.7
2	5.4	89.2	0.0	0.0	0.0	5.4	27.2
3	0.0	100.0	0.0	0.0	0.0	0.0	4.4
4	0.0	57.1	34.3	0.0	0.0	8.6	25.7
5	4.5	68.2	18.2	0.0	4.5	4.5	16.2
6	0.0	60.0	20.0	6.7	0.0	13.3	11.0
7	0.0	0.0	100.0	0.0	0.0	0.0	0.7
8	10.5	31.6	15.8	0.0	5.3	36.8	14.0

^xLegend appears on page 152 $\chi^2 = 58.855$ D/F = 35 P = .007025 C = .5496

TABLE XLII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
WITH JOB EXPERIENCE

Aspirations ^x	Expectations ^x							Total
	1	2	4	5	6	7	8	
2	0	2	0	0	0	0	0	2
3	1	2	0	0	0	0	0	3
4	0	7	10	0	0	0	0	17
5	0	0	5	2	0	1	0	8
6	0	1	0	0	1	0	0	2
7	0	1	0	0	0	0	0	1
8	0	1	0	0	0	0	1	2
Total N	1	14	15	2	1	1	1	35
Total per cent	2.9	40.0	42.9	5.7	2.9	2.9	2.9	100.0
Per cent by row								
2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	5.7
3	33.3	66.7	0.0	0.0	0.0	0.0	0.0	8.6
4	0.0	41.2	58.8	0.0	0.0	0.0	0.0	48.6
5	0.0	0.0	62.5	25.0	0.0	12.5	0.0	22.9
6	0.0	50.0	0.0	0.0	50.0	0.0	0.0	5.7
7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	2.9
8	0.0	50.0	0.0	0.0	0.0	0.0	50.0	5.7

^xLegend appears on page 152 $\chi^2 = 66.348$ D/F = 36 P = .001530 C = .8091

TABLE XLIII

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS
WITH NO JOB EXPERIENCE

Aspirations ^x	Expectations ^x						Total
	1	2	4	5	7	8	
2	0	2	0	0	0	0	2
3	0	1	1	0	0	0	2
4	1	0	4	0	1	0	6
5	0	0	1	0	0	0	1
6	0	0	1	1	0	0	2
8	0	1	0	0	0	1	2
Total N	1	4	7	1	1	1	15
Total per cent	6.7	26.7	46.7	6.7	6.7	6.7	100.0
Per cent by row							
2	0.0	100.0	0.0	0.0	0.0	0.0	13.3
3	0.0	50.0	50.0	0.0	0.0	0.0	13.3
4	16.7	0.0	66.7	0.0	16.7	0.0	40.0
5	0.0	0.0	100.0	0.0	0.0	0.0	6.7
6	0.0	0.0	50.0	50.0	0.0	0.0	13.3
8	0.0	50.0	0.0	0.0	0.0	50.0	13.3

^xLegend appears on page 152

$$\chi^2 = 26.250 \quad D/F = 25 \quad P = .394357 \quad C = .7977$$

TABLE XLIV

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS
WITH JOB EXPERIENCE

Aspirations ^x	Expectations ^x							Total
	1	2	3	4	5	7	8	
2	4	31	0	0	0	0	0	35
3	0	5	1	1	0	0	0	7
4	0	17	0	14	0	0	2	33
5	0	12	0	6	0	1	2	21
6	0	10	0	3	1	0	2	16
7	0	2	0	0	0	0	0	2
8	2	7	0	2	0	0	5	16
Total N	6	84	1	26	1	1	11	130
Total per cent	4.6	64.6	0.8	20.0	0.8	0.8	8.5	100.0
Per cent by row								
2	11.4	88.6	0.0	0.0	0.0	0.0	0.0	26.9
3	0.0	71.4	14.3	14.3	0.0	0.0	0.0	5.4
4	0.0	51.5	0.0	42.4	0.0	0.0	6.1	25.4
5	0.0	57.1	0.0	28.6	0.0	4.8	9.5	16.2
6	0.0	62.5	0.0	18.8	6.2	0.0	12.5	12.3
7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	1.5
8	12.5	43.8	0.0	12.5	0.0	0.0	31.3	12.3

^xLegend appears on page 152 $\chi^2 = 76.051$ D/F = 36 P = .000109 C = .6075

TABLE XLV

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS
WITH NO JOB EXPERIENCE

Aspirations ^x	Expectations ^x					Total
	1	2	4	7	8	
1	0	1	0	0	0	1
2	1	26	0	0	3	30
3	0	5	0	0	0	5
4	0	24	14	0	1	39
5	1	16	7	1	0	25
6	0	8	6	0	0	14
7	0	1	1	0	0	2
8	0	4	3	3	7	17
Total N	2	85	31	4	11	133
Total per cent	1.5	63.9	23.3	3.0	8.3	100.0
Per cent by row						
1	0.0	100.0	0.0	0.0	0.0	0.8
2	3.3	86.7	0.0	0.0	10.0	22.6
3	0.0	100.0	0.0	0.0	0.0	3.8
4	0.0	61.5	35.9	0.0	2.6	29.3
5	4.0	64.0	28.0	4.0	0.0	18.8
6	0.0	57.1	42.9	0.0	0.0	10.5
7	0.0	50.0	50.0	0.0	0.0	1.5
8	0.0	23.5	17.6	17.6	41.2	12.8

^xLegend appears on page 152 $\chi^2 = 68.203$ $D/F = 28$ $P = .000033$ $C = .5822$

TABLE XLVI
OCCUPATIONAL ASPIRATIONS OF STUDENTS

Students	Aspirations ^x											
	1	2	4	5	6	7	9	10	11	12	13	Total
Boys	6	8	0	5	4	2	1	5	4	13	2	50
Girls	27	48	2	101	0	12	4	6	4	54	5	263
Total N	33	56	2	106	4	14	5	11	8	67	7	313
Total per cent	10.5	17.9	0.6	33.9	1.3	4.5	1.6	3.5	2.6	21.4	2.2	100.0
Per cent by row												
Boys	12.0	16.0	0.0	10.0	8.0	4.0	2.0	10.0	8.0	26.0	4.0	16.0
Girls	10.3	18.3	0.8	38.4	0.0	4.6	1.5	2.3	1.5	20.5	1.9	84.0

^xLegend appears on page 152

$\chi^2 = 47.194$ $D/F = 10$ $P. 000001$ $C = .3620$

TABLE XLVII
OCCUPATIONAL EXPECTATIONS OF STUDENTS

Students	Expectations ^x											
	1	2	4	5	6	7	8	9	10	11	12	Total
Boys	3	4	1	4	1	2	2	2	4	10	17	50
Girls	2	18	1	157	0	13	1	0	8	20	43	263
Total N	5	22	2	161	1	15	3	2	12	30	60	313
Total per cent	1.6	7.0	0.6	51.4	0.3	4.8	1.0	0.6	3.8	9.6	19.2	100.0
Per cent by row												
Boys	6.0	8.0	2.0	8.0	2.0	4.0	4.0	4.0	8.0	20.0	34.0	16.0
Girls	0.8	6.8	0.4	59.7	0.0	4.9	0.4	0.0	3.0	7.6	16.3	84.0

^xLegend appears on page 152

$$\chi^2 = 68.710 \quad D/F = 10 \quad P = .000000 \quad C = .4243$$

TABLE XLVIII
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF STUDENTS

Aspirations ^x	Expectations ^x											
	1	2	4	5	6	7	8	9	10	11	12	Total
1	5	1	0	20	0	1	0	0	1	1	4	33
2	0	18	0	25	0	1	2	0	0	2	8	56
4	0	0	1	0	0	0	0	0	0	0	1	2
5	0	0	0	87	0	1	0	0	3	6	9	106
6	0	0	0	0	1	1	0	0	0	2	0	4
7	0	0	1	2	0	10	0	0	0	0	1	14
9	0	0	0	3	0	0	0	1	0	0	1	5
10	0	0	0	2	0	0	0	1	6	0	2	11
11	0	0	0	2	0	0	1	0	0	5	0	8
12	0	3	0	18	0	1	0	0	2	12	31	67
13	0	0	0	2	0	0	0	0	0	2	3	7
Total N	5	22	2	161	1	15	3	2	12	30	60	313
Total per cent	1.6	7.0	0.6	51.4	0.3	4.8	1.0	0.6	3.8	9.6	19.2	100.0
Per cent by row												
1	15.2	3.0	0.0	60.6	0.0	3.0	0.0	0.0	3.0	3.0	12.1	10.5
2	0.0	32.1	0.0	44.6	0.0	1.8	3.6	0.0	0.0	3.6	14.3	17.9
4	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.6
5	0.0	0.0	0.0	82.1	0.0	0.9	0.0	0.0	2.8	5.7	8.5	33.9
6	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	50.0	0.0	1.3
7	0.0	0.0	7.1	14.3	0.0	71.4	0.0	0.0	0.0	0.0	7.1	4.5
9	0.0	0.0	0.0	60.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	1.6
10	0.0	0.0	0.0	18.2	0.0	0.0	0.0	9.1	54.5	0.0	18.2	3.5
11	0.0	0.0	0.0	25.0	0.0	0.0	12.5	0.0	0.0	62.5	0.0	2.6
12	0.0	4.5	0.0	26.9	0.0	1.5	0.0	0.0	3.0	17.9	46.3	21.4
13	0.0	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	28.6	42.9	2.2

^xLegend appears on page 152 $\chi^2=674.762$ $D/F=100$ $P=.000000$ $C=.8265$

TABLE XLIX
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS

Aspirations ^x	Expectations ^x											
	1	2	4	5	6	7	8	9	10	11	12	Total
1	3	0	0	1	0	0	0	0	1	0	1	6
2	0	4	0	1	0	0	1	0	0	0	2	8
5	0	0	0	1	0	0	0	0	0	0	4	5
6	0	0	0	0	1	1	0	0	0	2	0	4
7	0	0	1	0	0	0	0	0	0	0	1	2
9	0	0	0	0	0	0	0	1	0	0	0	1
10	0	0	0	1	0	0	0	1	2	0	1	5
11	0	0	0	0	0	0	1	0	0	3	0	4
12	0	0	0	0	0	1	0	0	1	4	7	13
13	0	0	0	0	0	0	0	0	0	1	1	2
Total N	3	4	1	4	1	2	2	2	4	10	17	50
Total per cent	6.0	8.0	2.0	8.0	2.0	4.0	4.0	4.0	8.0	20.0	34.0	100.0
Per cent by row												
1	50.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	0.0	16.7	12.0
2	0.0	50.0	0.0	12.5	0.0	0.0	12.5	0.0	0.0	0.0	25.0	16.0
5	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	10.0
6	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	50.0	0.0	8.0
7	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	4.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	2.0
10	0.0	0.0	0.0	20.0	0.0	0.0	0.0	20.0	40.0	0.0	20.0	10.0
11	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	75.0	0.0	8.0
12	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	7.7	30.8	53.8	26.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	4.0

^xLegend appears on page 152 $X^2=157.630$ $D/F=90$ $P=.000014$ $C=.8713$

TABLE L
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS

Aspirations ^x	Expectations ^x											
	1	2	4	5	7	8	10	11	12	Total		
1	2	1	0	19	1	0	0	1	3	27		
2	0	14	0	24	1	1	0	2	6	48		
4	0	0	1	0	0	0	0	0	1	2		
5	0	0	0	86	1	0	3	6	5	101		
7	0	0	0	2	10	0	0	0	0	12		
9	0	0	0	3	0	0	0	0	1	4		
10	0	0	0	1	0	0	4	0	1	6		
11	0	0	0	2	0	0	0	2	0	4		
12	0	3	0	18	0	0	1	8	24	54		
13	0	0	0	2	0	0	0	1	2	5		
Total N	2	18	1	157	13	1	8	20	43	263		
Total per cent	0.8	6.8	0.4	59.7	4.9	0.4	3.0	7.6	16.3	100.0		
Per cent by row												
1	7.4	3.7	0.0	70.4	3.7	0.0	0.0	3.7	11.1	10.3		
2	0.0	29.2	0.0	50.0	2.1	2.1	0.0	4.2	12.5	18.3		
4	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.8		
5	0.0	0.0	0.0	85.1	1.0	0.0	3.0	5.9	5.0	38.4		
7	0.0	0.0	0.0	16.7	83.3	0.0	0.0	0.0	0.0	4.6		
9	0.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	25.0	1.5		
10	0.0	0.0	0.0	16.7	0.0	0.0	66.7	0.0	16.7	2.3		
11	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0	1.5		
12	0.0	5.6	0.0	33.3	0.0	0.0	1.9	14.8	44.4	20.5		
13	0.0	0.0	0.0	40.0	0.0	0.0	0.0	20.0	40.0	1.9		

^xLegend appears on page 152 $\chi^2=521.614$ D/F=72 P=.000000 C=.8154

TABLE LI
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS OF HIGH MENTAL ABILITY

Aspirations ^x	Expectations ^x								Total
	1	2	4	5	7	8	11	12	
1	2	0	0	1	0	0	0	0	3
2	0	3	0	1	0	1	0	0	5
5	0	0	0	1	0	0	0	0	3
7	0	0	1	0	0	0	0	1	2
10	0	0	0	1	0	0	0	1	2
11	0	0	0	0	0	1	2	0	3
12	0	0	0	0	1	0	1	2	4
13	0	0	0	0	0	0	1	0	1
Total N	2	3	1	4	1	2	4	6	23
Total per cent	8.7	13.0	4.3	17.4	4.3	8.7	17.4	26.1	100.0
Per cent by row									
1	66.7	0.0	0.0	33.3	0.0	0.0	0.0	0.0	13.0
2	0.0	60.0	0.0	20.0	0.0	20.0	0.0	0.0	21.7
5	0.0	0.0	0.0	33.3	0.0	0.0	0.0	66.7	13.0
7	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	8.7
10	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	8.7
11	0.0	0.0	0.0	0.0	0.0	33.3	66.7	0.0	13.0
12	0.0	0.0	0.0	0.0	25.0	0.0	25.0	50.0	17.4
13	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	4.3

^xLegend appears on page 152 $\chi^2=65.007$ D/F=49 P=.062517 C=.8595

TABLE LII
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS OF LOW MENTAL ABILITY

Aspirations ^x	Expectations ^x										
	1	2	6	7	9	10	11	12	Total		
1	1	0	0	0	0	1	0	1	3		
2	0	1	0	0	0	0	0	2	3		
5	0	0	0	0	0	0	0	0	2		
6	0	0	1	1	0	0	2	0	4		
9	0	0	0	0	1	0	0	0	1		
10	0	0	0	0	1	2	0	0	3		
11	0	0	0	0	0	0	1	0	1		
12	0	0	0	0	0	1	3	5	9		
13	0	0	0	0	0	0	0	1	1		
Total N	1	1	1	1	2	4	6	11	27		
Total per cent	3.7	3.7	3.7	3.7	7.4	14.8	22.2	40.7	100.0		
Per cent by row											
1	33.3	0.0	0.0	0.0	0.0	33.3	0.0	33.3	11.1		
2	0.0	33.3	0.0	0.0	0.0	0.0	0.0	66.7	11.1		
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	7.4		
6	0.0	0.0	25.0	25.0	0.0	0.0	50.0	0.0	14.8		
9	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	3.7		
10	0.0	0.0	0.0	0.0	33.3	66.7	0.0	0.0	11.1		
11	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	3.7		
12	0.0	0.0	0.0	0.0	0.0	11.1	33.3	55.6	33.3		
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3.7		

^xLegend appears on page 152 $\chi^2=66.272$ $X^2=66.272$ D/F=56 P=.163793 C=.8429

TABLE LIII

OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS OF HIGH MENTAL ABILITY

Aspirations ^x	Expectations ^x											Total
	1	2	4	5	7	8	10	11	12			
1	2	0	0	8	0	0	0	0	1	1	12	
2	0	8	0	8	1	1	0	0	0	3	21	
4	0	0	1	0	0	0	0	0	0	0	2	
5	0	0	0	46	0	0	0	0	3	4	53	
7	0	0	0	2	6	0	0	0	0	0	8	
9	0	0	0	2	0	0	0	0	0	0	2	
10	0	0	0	1	0	0	0	1	0	1	3	
11	0	0	0	0	0	0	0	0	1	0	1	
12	0	3	0	10	0	0	0	0	7	11	31	
13	0	0	0	1	0	0	0	0	0	1	2	
Total N	2	11	1	78	7	1	1	12	22		135	
Total per cent	1.5	8.1	0.7	57.8	5.2	0.7	0.7	8.9	16.3		100.0	
Per cent by row												
1	16.7	0.0	0.0	66.7	0.0	0.0	0.0	8.3	8.3		8.9	
2	0.0	38.1	0.0	38.1	4.8	4.8	0.0	0.0	14.3		15.6	
4	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0		1.5	
5	0.0	0.0	0.0	86.8	0.0	0.0	0.0	5.7	7.5		39.3	
7	0.0	0.0	0.0	25.0	75.0	0.0	0.0	0.0	0.0		5.9	
9	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		1.5	
10	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	33.3		2.2	
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.7	
12	0.0	9.7	0.0	32.3	0.0	0.0	0.0	22.6	35.5		23.0	
13	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0		1.5	

^xLegend appears on page 152 $\chi^2=299.059$ D/F=72 P=.000000 C=.8300

TABLE LIV
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS OF LOW MENTAL ABILITY

Aspirations ^x	Expectations ^x							Total
	2	5	7	10	11	12		
1	1	11	1	0	0	2	15	
2	6	16	0	0	2	3	27	
5	0	40	1	3	3	1	48	
7	0	0	4	0	0	0	4	
9	0	1	0	0	0	1	2	
10	0	0	0	3	0	0	3	
11	0	2	0	0	1	0	3	
12	0	8	0	1	1	13	23	
13	0	1	0	0	1	1	3	
Total N	7	79	6	7	8	21	128	
Total per cent	5.5	61.7	4.7	5.5	6.2	16.4	100.0	
Per cent by row								
1	6.7	73.3	6.7	0.0	0.0	13.3	11.7	
2	22.2	59.3	0.0	0.0	7.4	11.1	21.1	
5	0.0	83.3	2.1	6.2	6.2	2.1	37.5	
7	0.0	0.0	100.0	0.0	0.0	0.0	3.1	
9	0.0	50.0	0.0	0.0	0.0	50.0	1.6	
10	0.0	0.0	0.0	100.0	0.0	0.0	2.3	
11	0.0	66.7	0.0	0.0	33.3	0.0	2.3	
12	0.0	34.8	0.0	4.3	4.3	56.5	18.0	
13	0.0	33.3	0.0	0.0	33.3	33.3	2.3	

^xLegend appears on page 152 $\chi^2=204.723$ $P=.000000$ $C=.7844$

TABLE LV
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS OF HIGH SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x											
	1	2	4	5	6	7	8	9	10	11	12	Total
1	1	0	0	1	0	0	0	0	1	0	1	4
2	0	2	0	0	0	0	0	0	0	0	0	2
6	0	0	0	0	1	0	0	0	0	2	0	3
7	0	0	1	0	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	1	0	0	0	1
10	0	0	0	1	0	0	0	1	0	0	1	3
11	0	0	0	0	0	0	1	0	0	1	0	2
12	0	0	0	0	0	1	0	0	0	1	5	7
13	0	0	0	0	0	0	0	0	0	1	1	2
Total N	1	2	1	2	1	1	1	2	1	5	8	25
Total per cent	4.0	8.0	4.0	8.0	4.0	4.0	4.0	8.0	4.0	20.0	32.0	100.0
Per cent by row												
1	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	0.0	25.0	16.0
2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
6	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	66.7	0.0	12.0
7	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	4.0
10	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	33.3	12.0
11	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	8.0
12	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	14.3	71.4	28.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	8.0

^xLegend appears on page 152 $\chi^2=112.789$ $D/F=80$ $P=.009253$ $C=.9047$

TABLE LVI
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS OF LOW
SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x											
	1	2	5	7	8	10	11	12	Total			
1	2	0	0	0	0	0	0	0	2			
2	0	2	1	0	1	0	0	0	6			
5	0	0	1	0	0	0	0	0	5			
6	0	0	0	1	0	0	0	0	1			
7	0	0	0	0	0	0	0	1	1			
10	0	0	0	0	0	2	0	0	2			
11	0	0	0	0	0	0	2	0	2			
12	0	0	0	0	0	1	3	2	6			
Total N	2	2	2	1	1	3	5	9	25			
Total per cent	8.0	8.0	8.0	4.0	4.0	12.0	20.0	36.0	100.0			
Per cent by row												
1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0			
2	0.0	33.3	16.7	0.0	16.7	0.0	0.0	33.3	24.0			
5	0.0	0.0	20.0	0.0	0.0	0.0	0.0	80.0	20.0			
6	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	4.0			
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4.0			
10	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	8.0			
11	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	8.0			
12	0.0	0.0	0.0	0.0	0.0	16.7	50.0	33.3	24.0			

^xLegend appears on page 152 $\chi^2=93.009$ D/F=49 P=.000151 C=.8878

TABLE LVII
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS OF HIGH
SOCIO-ECONOMIC LEVEL

Aspirations ^x	Expectations ^x										Total
	1	2	4	5	7	10	11	12			
1	1	1	0	9	0	0	0	1	13		
2	0	9	0	15	0	0	0	0	27		
4	0	0	1	0	0	2	0	0	1		
5	0	0	0	36	5	0	0	4	43		
7	0	0	0	2	0	0	0	0	7		
9	0	0	0	1	0	0	0	0	1		
10	0	0	0	1	0	3	0	0	5		
11	0	0	0	1	0	0	1	0	2		
12	0	1	0	10	0	1	5	10	27		
13	0	0	0	0	0	0	0	1	1		
Total N	1	11	1	75	5	6	11	17	127		
Total per cent	0.8	8.7	0.8	59.1	3.9	4.7	8.7	13.4	100.0		
Per cent by row											
1	7.7	7.7	0.0	69.2	0.0	0.0	7.7	7.7	10.2		
2	0.0	33.3	0.0	55.6	0.0	0.0	0.0	11.1	21.3		
4	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.8		
5	0.0	0.0	0.0	83.7	0.0	4.7	9.3	2.3	33.9		
7	0.0	0.0	0.0	28.6	71.4	0.0	0.0	0.0	5.5		
9	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.8		
10	0.0	0.0	0.0	20.0	0.0	60.0	0.0	20.0	3.9		
11	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	1.6		
12	0.0	3.7	0.0	37.0	0.0	3.7	18.5	37.0	21.3		
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.8		

^xLegend appears on page 152 $\chi^2=324.618$ D/F=63 P=.000000 C=.8478

TABLE LVIII
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS OF LOW SOCIO-
ECONOMIC LEVEL

Aspirations ^x	Expectations ^x										Total
	1	2	5	7	8	10	11	12			
1	1	0	10	1	0	0	0	0	2	14	
2	0	5	9	1	1	0	0	2	3	21	
4	0	0	0	0	0	0	0	0	1	1	
5	0	0	50	1	0	1	0	2	4	58	
7	0	0	0	5	0	0	0	0	0	5	
9	0	0	2	0	0	0	0	0	1	3	
10	0	0	0	0	0	1	0	0	0	1	
11	0	0	1	0	0	0	0	0	0	2	
12	0	2	8	0	0	0	0	1	14	27	
13	0	0	2	0	0	0	0	3	1	4	
Total N	1	7	82	8	1	2	9	26		136	
Total per cent	0.7	5.1	60.3	5.9	0.7	1.5	6.6	19.1		100.0	
Per cent by row											
1	7.1	0.0	71.4	7.1	0.0	0.0	0.0	14.3		10.3	
2	0.0	23.8	42.9	4.8	4.8	0.0	9.5	14.3		15.4	
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.7	
5	0.0	0.0	86.2	1.7	0.0	1.7	3.4	6.9		42.6	
7	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0		3.7	
9	0.0	0.0	66.7	0.0	0.0	0.0	0.0	33.3		2.2	
10	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0		0.7	
11	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0		1.5	
12	0.0	7.4	29.6	0.0	0.0	0.0	11.1	51.9		19.9	
13	0.0	0.0	50.0	0.0	0.0	0.0	25.0	25.0		2.9	

^xLegend appears on page 152 $\chi^2=232.773$ D/F=63 P=.000000 C=.7945

TABLE LIX
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS WITH JOB EXPERIENCE

Aspirations ^x	Expectations ^x												Total
	1	2	4	5	7	8	9	10	11	12			
1	1	0	0	1	0	0	0	1	0	1	1	4	
2	0	3	0	1	0	1	0	0	0	0	2	7	
5	0	0	0	1	0	0	0	0	0	0	0	1	
6	0	0	0	0	1	0	0	0	0	2	0	3	
7	0	0	1	0	0	0	0	0	0	0	1	0	
9	0	0	0	0	0	0	0	1	0	0	0	1	
10	0	0	0	1	0	0	0	1	0	0	1	4	
11	0	0	0	0	0	0	1	0	3	3	0	4	
12	0	0	0	0	0	0	0	0	3	3	6	4	
13	0	0	0	0	0	0	0	0	0	0	1	4	
Total N	1	3	1	4	1	2	2	2	8	11	35	1	
Total per cent	2.9	8.6	2.9	11.4	2.9	5.7	5.7	5.7	22.9	31.4	100.0	35	
Per cent by row													
1	25.0	0.0	0.0	25.0	0.0	0.0	0.0	25.0	0.0	25.0	11.4	4	
2	0.0	42.9	0.0	14.3	0.0	14.3	0.0	0.0	0.0	28.6	20.0	7	
5	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	66.7	8.6	3	
6	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	66.7	0.0	8.6	3	
7	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.7	2	
9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	2.9	1	
10	0.0	0.0	0.0	25.0	0.0	0.0	25.0	25.0	0.0	25.0	11.4	4	
11	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	75.0	0.0	11.4	4	
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	17.1	6	
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2.9	1	

^xLegend appears on page 152 $\chi^2=103.394$ D/F=81 P=.047409 C=.8643

TABLE LX
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF BOYS WITH NO JOB EXPERIENCE

Aspirations ^x	Expectations ^x							Total
	1	2	6	7	10	11	12	
1	2	0	0	0	0	0	0	2
2	0	1	0	0	0	0	0	1
5	0	0	0	0	0	0	2	2
6	0	0	1	0	0	0	0	1
10	0	0	0	0	1	0	0	1
12	0	0	0	1	1	1	4	7
13	0	0	0	0	0	1	0	1
Total N	2	1	1	1	2	2	6	15
Total per cent	13.3	6.7	6.7	6.7	13.3	13.3	40.0	100.0
Per cent by row								
1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	6.7
5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	13.3
6	0.0	0.0	100.0	0.0	0.0	0.0	0.0	6.7
10	0.0	0.0	0.0	0.0	100.0	0.0	0.0	6.7
12	0.0	0.0	0.0	14.3	14.3	14.3	57.1	46.7
13	0.0	0.0	0.0	0.0	0.0	100.0	0.0	6.7

^xLegend appears on page 152 $\chi^2=60.000$ D/F=36 P=.007271 C=.8944

TABLE LXI
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS WITH
JOB EXPERIENCE

Aspirations ^x	Expectations ^x										Total
	1	2	5	7	8	10	11	12			
1	2	0	10	0	0	0	0	0	1	13	
2	0	7	14	0	1	0	0	0	1	24	
4	0	0	0	0	0	0	0	0	1	1	
5	0	0	44	1	0	0	0	3	2	50	
7	0	0	1	5	0	0	0	0	0	6	
10	0	0	1	0	0	2	0	0	1	4	
12	0	1	12	0	0	0	0	4	10	27	
13	0	0	2	0	0	0	0	1	2	5	
Total N	2	8	84	6	1	2	9	18		130	
Total per cent	1.5	6.2	64.6	4.6	0.8	1.5	6.9	13.9		100.0	
Per cent by row											
1	15.4	0.0	76.9	0.0	0.0	0.0	0.0	7.7		10.0	
2	0.0	29.2	58.3	0.0	4.2	0.0	4.2	4.2		18.5	
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.8	
5	0.0	0.0	88.0	2.0	0.0	0.0	6.0	4.0		38.5	
7	0.0	0.0	16.7	83.3	0.0	0.0	0.0	0.0		4.6	
10	0.0	0.0	25.0	0.0	0.0	50.0	0.0	25.0		3.1	
12	0.0	3.7	44.4	0.0	0.0	0.0	14.8	37.0		20.8	
13	0.0	0.0	40.0	0.0	0.0	0.0	20.0	40.0		3.8	

^xLegend appears on page 152 $\chi^2=237.150$ D/F=49 P=.000000 C=.8037

TABLE LXII
OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF GIRLS WITH NO
JOB EXPERIENCE

Aspirations ^x	Expectations ^x							Total
	2	4	5	7	10	11	12	
1	1	0	9	1	0	1	2	14
2	7	0	10	1	0	1	5	24
4	0	1	0	0	0	0	0	1
5	0	0	42	0	3	3	3	51
7	0	0	1	5	0	0	0	6
9	0	0	3	0	0	0	1	4
10	0	0	0	0	2	0	0	2
11	0	0	2	0	0	2	0	4
12	2	0	6	0	1	4	14	27
Total N	10	1	73	7	6	11	25	133
Total per cent	7.5	0.8	54.9	5.3	4.5	8.3	18.8	100.0
Per cent by row								
1	7.1	0.0	64.3	7.1	0.0	7.1	14.3	10.5
2	29.2	0.0	41.7	4.2	0.0	4.2	20.8	18.0
4	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.8
5	0.0	0.0	82.4	0.0	5.9	5.9	5.9	38.3
7	0.0	0.0	16.7	83.3	0.0	0.0	0.0	4.5
9	0.0	0.0	75.0	0.0	0.0	0.0	25.0	3.0
10	0.0	0.0	0.0	0.0	100.0	0.0	0.0	1.5
11	0.0	0.0	50.0	0.0	0.0	50.0	0.0	3.0
12	7.4	0.0	22.2	0.0	3.7	14.8	51.9	20.3

^xLegend appears on page 152 $\chi^2=320.964$ $D/F=48$ $P=.000000$ $C=.8408$

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